

PUBLIC HEALTH DEPARTMENT.

REPORT

ON THE HEALTH OF THE

CITY OF LIVERPOOL

DURING THE YEAR

— 1945 —

BY

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LIVERPOOL

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PUBLIC HEALTH DEPARTMENT,
LIVERPOOL.

MY LORD MAYOR, LADIES AND GENTLEMEN,

I have the honour to submit to you herewith my fifteenth Annual Report, relating to the health of the City of Liverpool.

Owing to the war, and in order to comply with the Ministry of Health's circular on the subject, the report has been considerably curtailed. The various modifications suggested by the Minister have been carried out and the text has been limited to matters of special interest. I desire to acknowledge figures and information for inclusion in the Report from the various Heads of Departments and also from the officers of the various voluntary hospitals and charitable institutions.

The total number of births was 14,784, giving a birth-rate of 21·7 per 1,000 as contrasted with a figure of 23·1 for the previous year. The total number of deaths from all causes was 9,523, giving a general death-rate of 14·0, as compared with 13·5 in 1944. The infantile mortality rate of 72 per 1,000 live births is little more than a quarter of those rates recorded at the beginning of the present century, having fallen from 81 in 1943.

The birth-rate of 21·7 per 1,000 is still higher than that of England and Wales, which is 16·1 per 1,000. Seven deaths occurred from puerperal fever as contrasted with thirteen in 1944, and the maternal mortality rate was 1·51 per 1,000 births.

The fall in still-birth rate has been pronounced and this rate is now 28·3 per 1,000 total births. This is the first occasion since still-births have been registered that the rate has fallen below 30 per 1,000, and in 1935 the rate was 41·4.

The number of deaths from infective diseases (including influenza) was 267. The low rate was due to two factors, first the great reduction in the number of cases and deaths from diphtheria, from which 28 persons died as against 31 in the previous year, a result due almost certainly to the extensive campaign of anti-diphtheria inoculation carried out in these two years, and secondly the almost complete absence of typhoid fever, from which two deaths occurred during the year.

I should like to be permitted to express my thanks to the Chairmen and Members of the Corporation Committees concerned with the Public Health Department for the courtesy and kindness with which they have considered the various suggestions and recommendations made to them.

I am,

Your obedient Servant,

W. M. FRAZER,
Medical Officer of Health.

CITY OF LIVERPOOL.

SUMMARY

OF

VITAL STATISTICS FOR 1945.

Area (land and inland water)	...	...	...	...	27,321 Acres (43 sq. miles)
Population (Estimated by Registrar General)	...	...	...	...	681,120
Live Births	...	...	14,784	Live Birth rate	21·7 per 1,000 of estimated population.
Deaths (all causes)	...	...	9,523	Death rate	14·0 per 1,000 of estimated population.
Deaths (under 1 year of age)	1,068			Infant Mortality rate	72 per 1,000 live births	
Deaths from :—						
Seven principal Zymotic diseases	}	227	Zymotic death rate	}	0·33	
Pulmonary Tuberculosis			}			605	Pulmonary Tuberculosis death rate	}	0·88
Other forms of Tuberculosis	}	96		Non Pulmonary Tuberculosis death rate	}		0·14
Respiratory diseases			1,551	Respiratory death rate		}		2·27
Cancer	1,230	Cancer death rate	}		1·80
Maternal Deaths	23	Maternal Mortality rate	}	1·51 per 1,000 births.

BIRTHS.

The number of live births recorded during the year 1945 was 14,784, equal to a rate of 21·7 per 1,000 of the estimated resident mid-year population. Of the total births, 7,530 were males and 7,254 were females. The number of illegitimate live births was 1,582 or 10·7 per cent. of the total births, 815 being males and 767 females.

The birth-rate in the City of Liverpool was considerably above the average of the great towns, which was 19·1 per 1,000 of the population, as well as of England and Wales taken as a whole, where the rate was 16·1 per 1,000.

The number of still-births registered was 431 as shown in the table below. This represented 28·3 per thousand of the total (live and still) births registered and 0·63 per 1,000 of the estimated population.

	LIVE BIRTHS.			STILL BIRTHS.		
	Males.	Females.	Total.	Males.	Females.	Total
Legitimate ...	6,715	6,487	13,202	182	199	381
Illegitimate ...	815	767	1,582	32	18	50
	7,530	7,254	14,784	214	217	431

The following figures show not only an increase in the actual number of illegitimate births, but an increase in the proportion of illegitimate births when compared with 1938.

	Births.	Birth Rate.	Illegitimate Birth Rate per 1,000 population.	% of Total Births.	Total Illegitimate Births.
1938	16,175	18·7	0·89	4·8	771
1942	13,729	20·5	1·30	6·3	871
1943	14,432	21·8	1·55	7·1	1,030
1944	15,412	23·1	1·91	8·3	1,274
1945	14,784	21·7	2·32	10·7	1,582

STILL-BIRTHS.

The following figures show the reduction in the numbers of still-births which have taken place in the City during the past eleven years and the corresponding rates per thousand of population and per thousand births. The latter rate is the more valuable as it expresses the proportion of total births lost, the actual number of live births occurring varying from 17,347 in 1935 down to 13,291 in 1941 and up to 14,784 in 1945. It will be noted that there has been a marked and almost continuous fall in the still-birth rate throughout this period, thus constituting a considerable saving of life additional to that which has resulted from the infant mortality rate. The fall is 31 per cent. of the 1935 figure and the rate is now below 30 per thousand births, and it is probable that a further considerable reduction is still possible.

The causes of this reduction, which has also affected the country generally though not in the same degree, are somewhat obscure. The greater care of expectant mothers in the ante-natal clinics and the better obstetric services have undoubtedly contributed to this reduction, but there is some evidence to show that the better nutrition of expectant mothers of the labouring classes in war-time, together with diminished unemployment during this period, have also largely contributed.

The still-birth rate among legitimate babies was 24 per thousand and among illegitimate babies was 31 per thousand births.

Year.	-Registered Live Births.	Registered Still Births.	Total Births.	Still-births Rate per 1,000 population.	Still-births per 1,000 Live and Still Births.
1935.....	17,347	749	18,096	0.9	41.4
1936.....	17,403	708	18,111	0.8	39.1
1937.....	16,728	618	17,346	0.7	35.6
1938.....	16,175	639	16,814	0.7	38.0
1939.....	15,614	631	16,245	0.8	38.9
1940.....	15,016	519	15,535	0.7	33.4
1941.....	13,291	508	13,799	0.7	36.8
1942.....	13,729	552	14,281	0.8	38.6
1943.....	14,432	485	14,917	0.7	32.5
1944.....	15,412	492	15,904	0.7	30.9
1945.....	14,784	431	15,215	0.6	28.3

DEATHS.

The total deaths registered during the year numbered 9,523 (4,984 males and 4,539 females), equal to a death-rate of 14.0 per 1,000 of the estimated resident population. Since the commencement of the war the deaths of non-civilians are excluded.

The death-rate for England and Wales was 11·4 and that of the great towns was 13·5. The following table shows deaths at various age periods, expressed as a percentage of total deaths, for each year 1915 to 1945:—

Year	Under 5 years.	At Ages—Years.									
		5—	10—	20—	30—	40—	50—	60—	70—	80—	
1915 ...	% 33	% 2	% 4	% 4	% 7	% 9	% 12	% 13	% 12	% 4	100
1916 ...	30	3	4	5	6	9	12	14	13	4	100
1917 ...	29	3	4	5	7	9	12	14	13	4	100
1918 ...	29	5	6	8	8	9	11	12	9	3	100
1919 ...	25	4	5	7	8	9	12	13	13	4	100
1915-1919 (average)	29	3	5	6	7	9	12	13	12	4	100
1920 ...	33	2	4	5	7	9	11	13	12	4	100
1921 ...	33	2	4	5	6	9	11	13	12	5	100
1922 ...	28	2	4	5	6	9	12	15	14	5	100
1923 ...	30	2	4	5	6	9	12	14	13	5	100
1924 ...	29	2	4	4	6	8	12	15	15	5	100
1920-1924 (average)	30	2	4	5	6	9	12	14	13	5	100
1925 ...	28	2	4	4	5	9	12	15	15	6	100
1926 ...	28	2	3	5	6	9	12	15	14	6	100
1927 ...	25	2	3	5	5	9	12	16	16	7	100
1928 ...	25	2	4	5	5	9	12	16	16	6	100
1929 ...	23	3	3	5	5	9	12	16	17	7	100
1925-1929 (average)	26	2	3	5	5	9	12	16	16	6	100
1930 ...	20	3	4	5	5	9	14	17	16	7	100
1931 ...	23	2	3	5	5	8	12	17	18	7	100
1932 ...	22	2	3	5	5	8	13	17	17	8	100
1933 ...	21	2	3	5	5	8	13	17	18	8	100
1934 ...	20	2	3	5	6	8	12	18	18	8	100
1930-1934 (average)	21	2	3	5	5	8	13	17	18	8	100
1935 ...	17	2	3	5	5	8	13	19	20	8	100
1936 ...	16	2	3	5	5	7	14	19	21	8	100
1937 ...	17	2	2	5	5	7	13	19	21	9	100
1938 ...	16	1	3	4	5	7	13	20	22	9	100
1939 ...	13	1	3	4	4	7	14	21	23	10	100
1935-1939 (average)	16	2	3	5	5	7	13	19	21	9	100
1940 ...	14	2	3	4	5	8	14	21	20	9	100
1941 ...	15	2	4	5	6	8	13	20	19	8	100
1942 ...	14	1	2	4	5	7	14	22	22	9	100
1943 ...	14	1	2	3	5	7	13	22	23	10	100
1944 ...	12	1	2	4	4	7	13	23	24	10	100
1940-1944 (average)	14	1	3	4	5	7	13	22	22	9	100
1945 ...	13	1	2	3	4	7	13	22	23	12	100

ANALYSIS OF CAUSES OF MORTALITY.

Deaths from certain Groups of Diseases in each decade from 1871 to 1940, and during 1941, 1942, 1943, 1944 and 1945.

Years.	(a) Infective diseases (less Diarrhoea and Influenza).	(b) Tubercular diseases.	(c) Respiratory diseases (including Influenza).	(d) Digestive diseases (including Diarrhoea).	Total Deaths from Classes (a), (b), (c) & (d)	(e) Cancer.	Total Deaths from all causes.
1871-1880	27,205	19,869	29,763	14,747	91,584	2,015	147,005
1881-1890	19,748	17,870	32,507	13,186	86,311	2,820	146,195
1891-1900	13,515	16,714	35,819	18,491	84,539	4,223	145,522
1901-1910	13,967	16,054	32,995	18,163	81,179	6,480	150,962
1911-1920	10,417	14,946	36,480	12,282	74,125	7,603	137,223
1921-1930	7,831	12,664	29,447	8,184	58,126	9,852	117,756
1931-1940	6,473	9,413	18,196	5,987	40,069	12,619	115,632
1941	623	846	2,226	447	4,142	1,211	13,253
1942	495	777	1,403	383	3,058	1,279	9,388
1943	238	773	1,856	399	3,266	1,337	9,719
1944	226	679	1,344	362	2,611	1,215	9,010
1945	200	701	1,620	435	2,956	1,230	9,523

Deaths expressed as a percentage of total deaths from all causes (Proportionate Mortality).

Years.	(a)	(b)	(c)	(d)	Total Deaths from Classes (a), (b), (c) & (d)	(e)	Total Deaths from all causes.
1871-1880	19.2	13.5	20.2	10.0	62.9	1.4	100.0
1881-1890	14.1	12.7	23.2	9.4	59.4	2.0	100.0
1891-1900	9.3	10.8	24.6	12.7	57.4	2.9	100.0
1901-1910	8.6	10.6	21.8	12.0	53.0	4.3	100.0
1911-1920	7.9	10.9	27.3	8.9	55.0	5.5	100.0
1921-1930	6.6	10.7	25.0	6.9	49.4	8.4	100.0
1931-1940	5.6	8.1	15.7	5.2	34.7	10.9	100.0
1941	4.7	6.4	16.8	3.4	31.3	9.1	100.0
1942	5.3	8.3	14.9	4.1	32.6	13.6	100.0
1943	2.4	8.0	19.1	4.1	33.6	13.7	100.0
1944	2.5	7.5	14.9	4.0	28.9	13.5	100.0
1945	2.1	7.4	17.0	4.6	31.1	12.9	100.0

Death Rates per 1,000 Population.

Years,	(a) Infective diseases (less Diarrhoea and Influenza).	(b) Tubercular diseases.	(c) Respiratory diseases (including Influenza).	(d) Digestive diseases (including Diarrhoea).	Total Deaths from (a), (b), (c) & (d)	(e) Cancer.	Total Deaths from all causes.
1871-1880	5.2	3.6	5.7	2.8	17.3	0.4	28.5
1881-1890	3.6	3.2	5.9	2.4	15.1	0.5	26.1
1891-1900	2.2	2.7	5.9	3.0	13.8	0.7	23.9
1901-1910	1.9	2.2	4.5	2.5	11.1	0.9	20.0
1911-1920	1.3	1.9	4.7	1.6	9.5	1.0	18.1
1921-1930	0.9	1.4	3.3	0.9	6.5	1.1	13.6
1931-1940	0.7	1.1	2.1	0.7	4.7	1.5	13.7
1941	0.9	1.2	3.2	0.6	5.9	1.8	19.3
1942	0.7	1.1	2.1	0.6	4.5	1.9	14.0
1943	0.3	1.2	2.8	0.6	4.9	2.0	14.7
1944	0.3	1.0	2.0	0.5	3.9	1.8	13.5
1945	0.3	1.0	2.4	0.6	4.3	1.8	14.0

Death-Rates expressed as a percentage of the rates experienced in 1871-1880 (Index Numbers).

1871-1880	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1881-1890	69.0	88.0	104.0	85.7	89.1	125.0	91.0
1891-1900	42.0	75.0	104.0	107.2	79.3	175.0	84.0
1901-1910	36.0	61.0	79.0	89.3	64.3	225.0	70.0
1911-1920	26.0	50.0	83.0	56.7	56.0	250.0	67.0
1921-1930	17.1	40.0	58.8	36.8	38.5	280.0	47.7
1931-1940	13.5	30.6	36.8	25.0	27.2	375.0	48.1
1941	17.3	33.3	56.1	21.4	34.1	450.0	67.7
1942	13.5	30.6	36.8	21.4	26.0	475.0	49.1
1943	5.8	33.3	49.4	21.4	28.3	500.0	51.6
1944	5.8	28.0	35.1	17.9	22.5	450.0	47.4
1945	5.8	28.0	42.1	21.4	24.8	450.0	49.1

INFANTILE MORTALITY.

The following table shows the deaths and death-rates of infants under one year of age for the year 1945:—

	Infant Deaths.	Infant Death Rates.
All Infants 	1,068	72 per 1,000 live births.
Legitimate Infants 	927	70 „ legitimate live births.
Illegitimate Infants 	141	89 „ illegitimate live births.

In 1934 the infant death-rate for legitimate live births was 75 and for illegitimate live births 168, i.e. more than double that of the legitimately born infants.

Analysis of causes of Infant Mortality in successive quinquennia 1896-1940,
and the years 1941, 1942, 1943, 1944 and 1945. (A.)—Recorded Deaths.

Years.	1 Total Births.	2 Total Deaths Under 1 Year of Age.	3 General Diseases (excluding Tubercu- losis).	4 Tubercular Diseases.	5 Nervous Diseases	6 Respira- tory Diseases	7 Digestive Diseases (including Diarrhoea.)	8 Malforma- tions, Premature Birth, Maras- mus, &c.	9 E C
896/1900	111,700	21,160	1,508	698	2,476	3,575	6,376	5,698	
901/1905	118,801	20,353	1,546	644	2,516	3,484	5,187	5,732	
906/1910	118,313	17,739	1,613	465	2,052	3,146	3,902	5,520	
911/1915	111,872	15,458	1,309	345	1,432	2,916	3,635	4,953	
916/1920	99,451	11,510	1,116	202	1,083	2,821	1,872	4,107	
921/1925	104,217	10,497	1,066	200	573	2,776	1,786	3,764	
926/1930	95,701	9,002	978	109	401	2,553	1,670	2,981	
931/1935	88,644	7,904	902	82	368	2,050	1,184	3,125	
936/1940	80,936	6,226	573	74	519	1,457	698	2,691	
1941	13,291	1,350	112	17	83	468	115	476	
1942	13,729	1,039	39	18	82	307	92	455	
1943	14,432	1,171	74	17	81	402	126	429	
1944	15,412	884	57	11	62	235	63	417	
1945	14,784	1,068	59	8	95	292	152	416	

(B.)—Death Rates per 1,000 Births.

896/1900	*33.4	189	12.7	6.2	22.1	32.0	57.1	51.0
901/1905	33.4	172	13.0	5.5	21.2	29.3	43.7	48.1
906/1910	32.2	149	13.6	3.9	17.4	26.6	33.0	46.7
911/1915	29.3	137	11.6	3.1	12.8	26.1	32.5	43.1
916/1920	24.9	116	11.1	2.0	10.9	28.4	18.8	42.0
921/1925	25.1	100	10.2	1.9	5.5	26.6	17.1	36.1
926/1930	22.1	94	10.2	1.1	4.2	26.7	17.4	31.1
931/1935	20.5	89	10.1	0.9	4.2	23.1	13.4	35.3
936/1940	19.4	77	7.0	0.9	6.4	17.9	8.8	32.9
1941	19.4	106	8.4	1.3	6.2	35.2	8.6	35.8
1942	20.5	76	2.8	1.3	6.0	22.4	6.7	33.1
1943	21.8	81	5.1	1.2	5.6	27.8	8.7	29.7
1944	23.1	57	3.7	0.7	4.0	15.2	4.1	27.0
1945	21.7	72	4.0	0.5	6.4	19.8	10.3	28.1

*In column 1 the rates indicate the number of births per 1,000 of the population.

(C.)—Death Rates expressed as a percentage of the rates recorded in 1896-1900.

896/1900	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
901/1905	100.0	91.0	102.3	89.3	95.9	91.5	76.5	94.0
906/1910	93.0	78.6	107.1	62.9	78.6	83.1	57.8	91.0
911/1915	87.0	72.5	91.9	50.0	57.9	81.5	56.9	84.0
916/1920	76.0	61.4	87.4	32.2	49.3	88.7	32.7	82.0
921/1925	75.1	54.9	80.3	30.6	24.9	84.7	28.9	70.8
926/1930	66.2	49.7	80.3	17.7	18.9	83.5	30.4	60.9
931/1935	61.4	47.2	79.5	14.8	18.9	72.2	23.4	69.2
936/1940	58.1	40.7	55.1	14.5	29.0	55.9	15.4	64.5
1941	58.1	56.1	66.1	20.9	28.1	110.0	15.1	70.2
1942	61.4	40.2	22.0	20.9	27.1	70.0	11.7	64.9
1943	65.3	42.8	40.2	19.4	25.3	86.9	15.2	58.2
1944	69.1	30.2	29.1	11.3	18.1	47.5	7.2	53.0
1945	65.0	38.1	31.5	8.1	28.9	61.9	18.0	55.1

CANCER.

There was a slight increase in the number of deaths recorded from cancer, namely, 1,230, as compared with 1,215 in 1944, this being equivalent to a death-rate of 1·8 per 1,000 of the population.

Progress continued to be made during the year with a view to implementing the terms of the interim arrangements made under the Cancer Act of 1939 and which had received the approval of the Ministry of Health in 1943. The Liverpool Cancer Control Organisation, to which the City Council has delegated the administration of these arrangements, and on which it is represented, extended to other areas in the neighbourhood its scheme for the co-ordination of facilities for the examination of persons suspected to be suffering from cancer and for the treatment of cases where the diagnosis of the disease is confirmed. It is hoped that eventually the scheme will serve a population of nearly two million persons.

DEATHS FROM CANCER AT VARIOUS AGE-PERIODS, 1945.

Organs Affected.	Males.	Females.	Number of Deaths.									All Ages.
			At Ages—Years									
			Under 10	10-	25-	40-	50-	60-	70-	75-	80-	
Buccal Cavity	32	8	—	—	—	1	4	11	10	8	6	40
Stomach ...	166	127	—	—	8	33	67	106	40	27	12	293
Liver ...	10	17	—	—	—	2	9	9	5	—	2	27
Intestines ...	152	187	—	—	7	30	61	102	65	48	26	339
Lungs ...	132	28	—	—	10	30	47	51	13	8	1	160
Female Genital Organs	—	102	—	—	9	22	26	23	9	4	9	102
Breast ...	1	118	—	—	7	19	31	32	9	10	11	119
Skin ...	7	6	—	—	1	—	1	—	5	2	4	13
Other Organs...	98	39	6	4	6	11	25	50	13	16	6	137
	598	632	6	4	48	148	271	384	169	123	77	1,230

NOTIFICATION OF INFECTIOUS DISEASE.

The following is a list of the diseases notifiable in Liverpool during 1945:—

Anthrax	Paratyphoid Fever
Acute Poliomyelitis	Plague
Cerebro-spinal Fever	Pneumonia, Acute Influenzal
Cholera	Pneumonia, Acute Primary
Diphtheria	Polio-encephalitis, Acute
Dysentery	Puerperal Pyrexia
Enteric (Typhoid) Fever	(including Puerperal Fever)
Erysipelas	Relapsing Fever
Encephalitis Lethargica, Acute	Scarlet Fever or Scarlatina
Malaria	Smallpox
Measles	Tuberculosis (all forms)
Membranous Croup	Typhus Fever
Ophthalmia Neonatorum	Whooping Cough

TABLE I.

NUMBERS OF CASES OF INFECTIOUS DISEASES COMING TO NOTICE DURING 1945
AND NUMBERS ADMITTED TO HOSPITAL.

	January	February	March	April	May	June	July	August	September	October	November	December	TOTALS	Cases admitted to hospital	Per centage admitted to hospital
Smallpox ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Plague ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enteric Fever ...	—	1	1	—	—	—	—	1	3	2	—	—	8	8	100·0
Scarlet Fever ...	181	201	207	166	163	196	118	143	231	245	375	256	2482	1017	41·0
Measles and German Measles...	958	750	701	471	370	292	142	109	57	106	119	193	4268	401	9·4
Diphtheria ...	50	48	60	41	38	42	38	60	87	75	83	70	692	673	97·2
Puerperal Pyrexia	22	23	16	28	20	19	23	20	38	20	22	21	272	258	94·8
Erysipelas ...	22	25	26	15	29	20	27	22	29	30	39	24	308	150	48·7
Cerebro-spinal Fever	8	7	8	4	1	1	1	2	3	4	3	5	47	41	87·2
Poliomyelitis and Polio-encephalitis	—	—	—	—	—	—	—	—	—	2	2	—	4	3	75·0
Ophthalmia Neonatorum ...	18	21	20	13	19	23	14	23	20	16	18	17	222	143	64·4
Pneumonia & Influenza Pneumonia	127	90	63	61	67	60	49	65	74	102	111	147	1016	153	15·0
Malaria ...	3	3	7	3	3	4	8	1	5	4	3	6	50	25	50·0
Dysentery ...	25	46	70	43	34	27	21	35	58	74	46	36	515	451	87·6
Encephalitis Lethargica ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Whooping Cough ...	187	170	191	81	112	69	68	80	41	30	39	25	1093	140	12·8
Anthrax ...	—	—	—	—	—	—	—	2	—	—	—	—	2	2	100·0
Chickenpox ...	6	9	8	3	8	6	6	7	8	8	8	12	89	47	52·8
TOTALS ...	1607	1394	1378	929	864	759	515	570	654	718	868	812	11068	3512	31·7

The numbers of patients admitted to hospital include the cases which occurred while in hospital.

INFECTIOUS SICKNESS.

Plague.

No case of plague occurred in the city during the year.

Smallpox.

No case of smallpox occurred in the city during the year.

Primary Vaccinations.

The numbers of primary vaccinations in Liverpool during the year 1944 and six previous years are given below:—

	1938.	1939.	1940.	1941.	1942.	1943.	1944.
1.—Number of children born	16,801	16,543	15,762	12,054	14,084	15,368	16,801
2.—Number of primary vaccinations.	11,124	10,447	9,466	7,227	8,984	10,012	10,124
3.—Number of exemption certificates granted.	2,586	2,362	1,889	1,206	1,237	1,492	1,586
4.—Number of certificates of insusceptibility sent.	52	70	119	56	86	102	102

Typhus Fever.

One case of typhus fever was reported during the year. The disease was contracted in Germany.

Anthrax.

Five cases of anthrax were treated during 1945 at the City Hospital, Fazakerley, and all recovered. Two of these cases contracted the disease in Liverpool.

Twenty-four persons attended the hospital as suspected cases for investigation, of which two were found to be suffering from anthrax and were admitted. Five persons exposed to infection through the handling of carcases of animals infected with anthrax were given a prophylactic dose of serum and none of them developed the disease subsequently.

Typhoid and Paratyphoid Fever.

During the year there occurred eight cases of typhoid fever. The infection in one case probably arose from contact with a Liverpool carrier; in two cases the source of the infection could not be ascertained but was probably in Liverpool, and in five cases the disease was contracted outside Liverpool.

No case of paratyphoid fever was reported during the year.

Port Cases of Typhoid Fever.

During the year 12 cases of typhoid fever were imported from overseas.

Register of Chronic Typhoid and Paratyphoid Excretors.

The following chronic excretors of typhoid or paratyphoid organisms are known and under observation. Bacteriological examination of faeces is carried out every three months.

Case Number.	Sex.	Age.	Disease.	Date of illness.	Date faeces last positive.
2	F.	56	Paratyphoid " B " fever.	July, 1941	Jan., 1946
4	M.	57	"	July, 1941	Dec., 1945
6	F.	51	"	July, 1941	Dec., 1945
7	F.	44	"	July, 1941	Jan., 1946
8	F.	41	"	Aug. 1941	Jan., 1946
12	F.	68	Typhoid Fever ...	Not known	Jan., 1946

Since last year, cases numbered 1 and 11, both paratyphoid " B " carriers, have been removed from the register, having ceased to excrete the organism.

Undulant Fever.

No case of undulant fever was reported during the year.

Diphtheria.

During 1945, 692 cases of diphtheria were reported, a case-rate of 1.0 per 1,000 of the population. Of these cases, 28 proved fatal, making a fatality rate of 4.0 per 100 cases and a mortality rate of 4.1 per 100,000 of the population.

AGES AT DEATH.

Under 1 year.	1—	2—	3—	4—	5—	10—	15—	20—	30—	40—	50—	60—	All Ages.
1	3	...	7	3	10	2	2	...	...	...	...	...	28

AGES OF NOTIFIED CASES.

9	29	29	48	58	279	122	55	43	9	7	2	2	692
65%						35%							

PERCENTAGE FATALITY AT EACH AGE.

1.11	10.3	...	14.6	5.2	3.6	1.6	3.6	4.0
------	------	-----	------	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

Scarlet Fever.

During 1945, 2,482 cases of scarlet fever were reported, a case-rate of 3.6 per 1,000 of the population. Of these cases, 1 proved fatal, making a fatality-rate of 0.04 per 100 cases, and a mortality-rate of 0.1 per 100,000 of the population.

AGES AT DEATH.

Under 1 year.	1—	2—	3—	4—	5—	10—	15—	20—	30—	40—	50—	60—	All Ages.
...	1	...	...	...	...	...	...	1

AGES OF NOTIFIED CASES.

14	62	118	164	172	1032	623	178	72	32	11	4	...	2,482
21.3%					41.6%	25.1%	12.0%						

PERCENTAGE FATALITY AT EACH AGE.

...	0.2	0.04
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	------

Inoculation against Diphtheria.

TABLE IV.

NUMBER OF COMPLETED DIPHTHERIA INOCULATIONS.

Where or by whom inoculated.	1925- 34	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945
INOCULATION CLINICS :												
Carnegie	1761	405	367	237	196	104	64	452	1,503	205	81	32
Townsend Avenue	1075	368	305	183	197	151	167	1,006	2,287	688	468	385
Child Welfare Centres	—	198	452	1119	1792	1096	859	2,617	14436	8271	7717	8875
SCHOOLS :												
Public Elementary	12869	4001	6251	4855	6356	2978	1,738	2,503	7,926	12907	5430	6052
Residential	1938	323	431	382	389	137	156	1,021	39	378	253	408
Secondary	—	—	—	—	—	—	—	—	408	1235	154	718
MUNICIPAL HOSPITALS :												
Fazakerley	2973	239	267	150	182	124	113	66	111	69	76	68
Fever Hospitals—North, South and East	554	258	113	202	185	238	123	50	46	40	44	30
Alder Hey	437	98	163	148	152	121	76	47	131	120	77	61
Olive Mount	581	49	24	41	56	29	2	13	74	97	118	175
Other Municipal Hospitals	81	34	92	80	86	84	49	54	121	47	64	80
Miscellaneous	1196	15	5	19	4	5	8	1	45	19	6	—
Medical Practitioners	545	128	78	85	71	39	63	257	241	121	133	75
TOTALS	24010	6116	8548	7501	9666	5106	3,418	8,087	27368	24197	14621	16959
GRAND TOTAL 155,597												

Age at date of inoculation	1925-1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	Ratio of inoculated to total population at end of 1945
Under 1 year:	18	26 27	27	19	2	1	3 2	8	1	5	2	2	42	33	1144	2930	
1 +	39	150 91	92	187	213	211	259	297 298	908	641	413	1096	1816	3876	4373	3552	Total under 5 years of age
2 +	57	89	189	109 110	157	232	340	461	262	304	282	857	2551	591	1123	1302	22,150, being 34.1% of the
3 +	72	82	189	246	82	222	259	367	433	124	193	799	2492	1094	329 330	732	population of this age.
4 +	74	103	253	466	301	245 244	513	698	710	453	102	726	2490	1124	589	305 304	
5 +	87	112	1224	1375	1637	1541	1148 1149	1658	2286	1133	737	627	3273	1874	1231	1284	
6 +	103	94	1405	1583	1999	1563	2497 910	910	2722	1042	771	1218	1434 1434	1742	1020	1315	Total 5-9 years of age
7 +	83	99	1048	1357	1222	872	1211	823	555	587	284	689	2032	757	800	978	38,208, being 57.3% of the
8 +	76	81	585	519	489	216	304	320	242	69	74	241	1469	1495	321	774	population of this age.
9 +	68	86	351	266	157	100	75	110	99	26	16	168	1054	1550	593	342 342	
10 +	85	89	179	170	132	100	103	96	95	75	63	77	1061	1585	594	621	
11 +	98	106	214	203	158	120	124	115	113	90	77	182	569	1876	550	602	Total 10-14 years of age
12 +	109	119	239	227	176	133	137	128	126	100	85	216	1385	1133	509	630	45,823, being 57.3% of the
13 +	100	108	216	205	159	122	125	117	114	90	78	183	1236	2086	209 210	583	population of this age.
14 +	22	24	47	45	35	27	27	25	25	20	17	40	213	478	46	37 36	
15 +	137	148	298	284	220	167	172	160	158	124	106	260	433	424	328	290	
Total	1,228	1,543	6,647	7,371	7,221	6,116	8,548	7,501	9,666	5,106	3,418	8,087	12,368	24,197	14,621	16,959	

TABLE VI.

DIPHTHERIA—COMPARATIVE INCIDENCE AMONG INOCULATED AND NON-INOCULATED CHILDREN
UNDER FIFTEEN YEARS OF AGE IN LIVERPOOL.

	1943.		1944.		1945.		Aggregate 1942/1945.	
	Inoculated.	Not Inoculated.	Inoculated.	Not Inoculated.	Inoculated.	Not Inoculated.	Inoculated.	Not Inoculated.
Number of child-years at risk ...	87,017*	98,245	97,315*	94,805	102,723*	90,337	349,706	416,882
Diphtheria cases	60	902	48	579	64	510	270	3,921
Annual rate of incidence per 1,000 child-years	0.69	9.18	0.49	6.10	0.62	5.64	0.77	9.40
Ratio	1 to 13.3		1 to 12.4		1 to 9.1		1 to 12.2	
Diphtheria deaths	0	35	2	27	0	26	2	185
Annual rate of dying per 1,000 child-years	Nil	0.35	0.02	0.28	Nil	0.29	0.0057	0.44
Ratio	—		1 to 14		—		1 to 77	

* Consisting of (a) all children under 13 inoculated before the end of the previous year; (b) five-sixths of the children of 13 years and one-sixth of the children of 14 years inoculated before the end of the previous year; (c) three-quarters of the children inoculated during the first half of the year of risk and (d) one-quarter of the children inoculated during the last half of the year of risk.

Measles.

During 1945, 4,215 cases of measles were reported, representing a case-rate of 6·1 per 1,000 of the population. The number of deaths was 13, making a fatality-rate of 0·3 per 100 cases and a mortality-rate of 2·0 per 100,000 of the population.

DEATHS FROM MEASLES.

AGES AT DEATH.													
Under 1 year.	1—	2—	3—	4—	5—	10—	15—	20—	30—	40—	50—	60—	All Ages.
8	1	3	1	—	—	—	—	—	—	—	—	—	13

AGES OF CASES.												
327	667	775	670	608	1,036	95	37					4.215

PERCENTAGE FATALITY AT EACH AGE.												
2·4	0·2	0·4	0·2	—	—	—	—					0·3

Whooping Cough.

During 1945, 1,093 cases of whooping cough came to the notice of the Health Department, a figure representing a case-rate of 1·6 per 1,000 of the population. Of these cases 38 proved fatal, corresponding to a death-rate of 5·6 per 100,000 of the population.

Number of Deaths from Whooping Cough at various Age Periods during 1945.							Total Deaths all ages.	Deaths expressed as a Percentage of Total Deaths.						
under 1 year.	1+	2+	3+	4+	5+	10+		under 1 year.	1+	2+	3+	4+	5+	10+
25	7	3	1	1	1	—	38	65·8	18·4	7·9	2·6	2·6	2·6	—

Cerebro-spinal Fever.

TABLE VII.

CASES AND DEATHS DURING 1945 AND NINE PREVIOUS YEARS.

	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945
Cases	94	94	76	70	468	453	201	83	58	47
Deaths	55	47	37	28	84	79	38	22	21	9
Fatality-rate per 100 cases	58·5	50·0	48·7	40·0	17·9	17·4	18·9	26·5	36·2	19·1

The fall in the fatality rate which has occurred in the last six years is, in the main, due to the success of treatment with Sulphonamide drugs.

Deaths from Influenza and other Respiratory Diseases.

TABLE VIII.

	Yearly average number of deaths.	Percentage proportion to all deaths.	Respiratory death-rate per 1,000 population.	Death-rates compared with the 1871-80 death-rate called 100.
1871-80 ...	2,976	20·2	5·7	100
1881-90 ...	3,251	23·2	5·9	104
1891-1900 ...	3,582	24·6	5·9	104
1901-10 ...	3,299	21·8	4·5	79
1911-20 ...	3,648	27·3	4·7	83
1921-30 ...	2,904	24·7	3·5	61·4
1931-40 ...	1,762	15·1	2·1	36·8
1941... ..	2,226	16·8	3·2	56·1
1942... ..	1,403	14·9	2·1	37·0
1943... ..	1,856	19·1	2·8	49·1
1944... ..	1,344	14·9	2·0	35·1
1945... ..	1,620	17·0	2·3	40·3

Dysentery.

During 1945, 511 cases of bacillary dysentery were reported in the city—173 Flexner, 334 Sonne, 1 Schmitz and 3 in which no organism was found. In addition, there were 4 cases of amoebic dysentery contracted abroad.

MATERNITY and CHILD WELFARE.

Vital Statistics

Live births	...	14,784	Live birth rate	...	21·7
Still-births	...	431	Still-birth rate	...	0·6

Total births ... 15,215

Infant Mortality rate ... 72

Neo-natal Mortality rate ... 29·8

Maternal Mortality rate ... 1·51

THE MIDWIFERY DEPARTMENT.

During the year, 255 midwives gave the required notice under Section 10 of the Midwives Act, 1902, of their intention to practise midwifery in this city. The number of municipal midwives at the end of 1945 was 49 and 1 temporary, and they attended—

Midwifery cases	...	...	...	3,294
Maternity cases	...	...	...	326
				— 3,620

Statement of Notifications of Live and Still Births received during the year 1945.

	1945.			Still Births per cent of total.
	Live Births.	Still Births.	Total.	
Midwives (Municipal)	3,274	69	3,343	2·0
Do. (Independent)	720	17	737	2·3
Medical Attendants	1,127	31	1,158	2·7
Liverpool Maternity Hospital.....	2,025	92	2,117	4·3
Municipal Hospitals	7,397	239	7,636	3·0
Other Institutions	579	23	602	3·6
District Homes	1,071	15	1,086	1·4
	16,193	486	16,679	2·9

The number of still-births notified was 486, of which 101 were notified by midwives. Enquiries were made into the circumstances of all still-births.

Visits paid by Staff of the Midwifery Department.

Routine and special visits to midwives	2,097
Visits regarding claims for fees from medical practitioners for attendance in emergency cases	1,727
Visits in respect of ophthalmia neonatorum	5,162
Special visits (puerperal pyrexia, venereal diseases, etc.) ...	1,583

Medical Assistance.

Under the rules of the Central Midwives Board, midwives sought medical aid in 2,293 cases—1,647 mothers and 646 children.

Consultant Services.

The total number of occasions on which the services of a consultant obstetrician were requisitioned in connection with cases of puerperal pyrexia or complications during pregnancy was 2.

Prevention of Spread of Infection.

Two municipal midwives were suspended from practice in order to prevent the spread of infection.

Public Health (Notification of Puerperal Fever and Puerperal Pyrexia) Regulations, 1926, 1928 and 1939.

The number of cases of puerperal pyrexia notified during the year was 272. Of these, 258 were admitted to or occurred in hospitals, and 32 occurred in the practice of midwives, and in 11 cases nurses were provided.

Maternal Mortality.

The number of live and still births registered in the city, together with maternal deaths and maternal death-rates, are as follows:—

BIRTHS REGISTERED.			MATERNAL MORTALITY.					
			Puerperal Fever.		Other Puerperal Causes.		Total.	
Live Births.	Still Births.	Total Births.	Deaths.	Rate per 1,000 total births.	Deaths.	Rate per 1,000 total births.	Deaths.	Rate per 1,000 total (live and still) births.
14,784	431	15,215	7	0·46	16	1·05	23	1·5

Special Investigation of Maternal Deaths.

As a result of inquiries it was found that 35 deaths occurred owing to pregnancy, child birth or concurrent diseases, such as heart disease or lung disease associated with pregnancy:—

Class I —Deaths directly due to childbearing	...	...	23
Class II—Deaths not primarily due to pregnancy	...	...	12

Ophthalmia Neonatorum.

Inflammation of the eyes of the newly-born

The number of cases brought to the notice of the department and treated during the year was 707, namely:—

Mild cases	...	...	...	...	...	...	...	659
Severe cases	...	...	...	...	...	...	...	48
Cases brought forward from previous year	...	...	...	...	...	...	...	22
Loss of sight	...	...	...	...	...	...	...	—
Total								729

During the year, 42 babies were admitted to the City Hospitals.

Arrangements are made with the City Bacteriologist to examine the discharge from inflamed eyes in the newly-born.

No. of cases brought to the notice of the department.	Cases from which specimens were examined by the City Bacteriologist and at Hospital.	No. of cases of positive Gonorrhoea.	Percentage to total cases examined.	Percentage to total notifications.
707	93	37	40·0	5·2

Nursing Homes.

Two registrations were cancelled during the year. The nursing homes on the register at the end of the year numbered 15, the approximate number of beds being 150. Babies born in nursing homes numbered 806, including 8 twin births.

THE HEALTH VISITORS' DEPARTMENT.

Ante-Natal and Post-Natal Clinics.

Total number of centres at which ante-natal clinics are held					27
Number of clinic sessions held per week	...	...	...		55
„ „ post-natal sessions held per week, separately from ante-natal	...	...	...	...	4
„ „ new cases attending ante-natal clinics	...	...	...		21,675
Total attendances at ante-natal clinics	...	...	...		95,260
„ „ „ post-natal „	...	...	...		5,114

Child Welfare Clinics.

Total number of centres at which child welfare clinics are held	...	...	...	...	...	...	23
Number of clinic sessions held per week	...	...	...				42
,, ,, new cases—Under 1 year of age	...	...	...				8,598
Aged 1-5 years	...	...	...				736
							<hr/> 9,334 <hr/>
Total attendances—under 1 year of age	...	...	...				76,455
Aged 1-5 years	...	...	...				16,554
							<hr/> 93,009 <hr/>

The attendances amounted to 63 per cent. of the births notified.

Statistics relating to Home Visits.

Visits to expectant mothers by health visitors	...	...	4,961
Number of births visited during the year	...	...	15,270
Re-visits to infants during the 1st year	...	...	72,003
„ „ „ aged 1 year to 5 years	...	...	96,171
Visits paid to homes of nurse children	...	...	555
Visits to children discharged from municipal hospitals	...	...	1,975

Visits to cases of Infectious Disease—

Visits to cases of measles (first visits, 4,492)	6,541
„ „ „ „ whooping cough (first visits, 19) ...	...	...	27
„ „ „ „ pneumonia ...	...	...	841
„ „ „ „ infantile diarrhœa ...	...	...	429
Enquiries into deaths due to diarrhœa ...	...	...	141

607 children under five years of age were referred for special treatment to the school medical department as follows:—

Defective vision ...	...	...	349
Otorrhœa ...	...	...	29
Orthopædic defects ...	...	...	229

Child Life Protection.

(a) Number of persons receiving children for reward on the Register at the end of the year 1945 ...	...	...	42
(b) Number of children on the Register:—			
(1) at the end of the year 1945 ...	...	...	52
(2) who died during the year (in homes) ...	...	...	2
(3) „ „ „ „ „ (in hospitals)...	...	...	—
(c) Proceedings taken during the year ...	...	...	Nil

Care of Illegitimate Children.

According to information available, the number of illegitimate children born alive in Liverpool during 1945 was 1,582, giving a rate of 2.32.

During the year, the City Council authorised the payment of increased grants to the voluntary organisations undertaking work in connection with unmarried mothers and illegitimate children.

Careful watch is kept over all illegitimate children by the Maternity and Child Welfare Department, and co-operation between the staff of that Department and the various voluntary workers is very close. A live register of all illegitimate children enables this surveillance to be continuous.

Neo-natal Mortality.

The number of neo-natal deaths amounted to 441, equal to a rate of 29.8 per thousand live births registered. Special enquiry was made into the deaths of all children who died within 28 days after birth.

Premature Infants.

Special accommodation is provided for 34 premature infants born in Broadgreen, Smithdown Road and Walton Hospitals. They are also admitted to cubicles in Alder Hey Hospital. A further unit is in course of preparation at Mill Road Infirmary, and when this is ready for use, the accommodation in premature baby wards will be increased by 12 cots.

In addition to these arrangements, certain equipment is available for midwives in whose practices premature infants are born, in order to facilitate special care of such children at home.

It is hoped that when sufficient hospital accommodation has been provided, premature babies born in the district and requiring institutional treatment will be admitted. This will entail the provision of special transport arrangements.

On discharge from the municipal hospitals, information relating to the condition and feeding of premature children is forwarded to the Medical Officer of Health. This ensures an early visit to the home from a health visitor or midwife, whichever is more appropriate to individual needs, and continued care is given until the mother is able to look after the child herself.

Evidence points to maternal nutrition being an important factor in the causation of prematurity. With this in view, advice is tendered in the ante-natal clinics to expectant mothers on their feeding during pregnancy and every endeavour is made to get them to use the extra rations and vitamin preparations available for them.

Dental Clinics.

Total attendances at the 6 clinics ...	2,457
New cases	1,143
Ante-natal and post-natal mothers ...	1,082
Children	61

War-Time Nurseries.

The following nurseries were available for the children of women in essential employment or who, for domestic reasons, could not care for their children themselves:—

(1) *Full-time Nurseries for children aged 0-5 years—*

	Accommodation for
Banks Road Hut, Garston (19)	50 children
“ The Bridge,” Ibbotson’s Lane, Sefton Park (17) ...	36 „
25, Derwent Road (13)	67 „
1, The Elms, Dingle (8)	36 „
Formosa Drive School, Fazakerley (10)	60 „
18, Great George Square (1)	73 „
25, Grove Park, Lodge Lane (8)	58 „
12, Holly Road, Fairfield (7)	75 „
Mill Road Nurses’ Home (6)	70 „
Monksdown Road Council School, Norris Green (11) ...	60 „
Orwell Road Hut, Kirkdale (4)	50 „
Salisbury Street Council School, Everton (3)	60 „
5/7, Swiss Road, Fairfield (6)	60 „
97/99, Upper Canning Street (8)	62 „
Wavertree Playground Hut (15)	50 „
Wellesbourne Road Council School, Norris Green (11)	60 „
262/264, Westminster Road, Kirkdale (4)	45 „

(2) *Residential Nurseries for Children aged 2-5 years—*

	Accommodation for
Unit, 5, Gwydrin Road, 7, Montclair Drive, 22, Sinclair Drive (18)	25 children
Kilrea Road Hut, West Derby (11)	36 „

Infestation by Head Lice.

Since the receipt of Circular 2831, health visitors have given increased attention to infestation by head lice of children under the age of five years. Nursery Matrons and school nurses have been asked to refer to the health visitors those families from which lice-infested children have attended nurseries or schools.

It has always been the practice to examine children where the personal cleanliness of the family is in doubt, but it is not always easy to obtain the co-operation of the mother and older members of the family. Quite frequently mothers resent any examination being made of members of the family who are suspected of re-infesting the children who have been cleansed.

Between 1st January and 31st December, 1945, 568 children under the age of five years were found by the health visitors to be verminous. In all cases, advice was given as to cleanliness and 465 of the mothers (or guardians) agreed to carry out instructions as to disinfestation. In 103 cases, however, they preferred to go to a cleansing station. In a few instances, improvement was maintained, but a hard core is still unsatisfactory. This is a problem which has engaged the attention of health visitors and school nurses for many years, and the difficulties in dealing with people who have no desire to be clean are increased by war conditions, such as soap rationing, inability to renew clothing owing to shortage of coupons, and to the fact that many women are engaged in work, whilst at the same time endeavouring to carry on their home duties. In such families, the children are frequently not well cared for, especially in regard to personal hygiene.

The heads of 78 mothers were cleansed—69 at home and 9 at cleansing stations.

TUBERCULOSIS.

Notification.

Public Health (Tuberculosis) Regulations, 1930.

SUMMARY OF NOTIFICATIONS DURING THE PERIOD FROM THE 1ST JANUARY, 1945,
TO 31ST DECEMBER, 1945:—

TABLE I.

Age-periods.	Notifications on Schedule A.												Total Notifica- tions on Form A. (includ- ing dupli- cates.)
	Number of Primary Notifications of New Cases of Tuberculosis.												
	0-	1-	5-	10-	15-	20-	25-	35-	45-	55-	65-	Total Primary Notifica- tions.	
Pulmonary—													
Males	2	22	17	11	61	113	182	191	133	105	24	861	1,088
Females	2	9	18	14	105	143	139	93	38	22	11	594	744
Non-Pulmonary—													
Males	4	21	18	18	20	11	15	8	2	—	3	120	156
Females	1	19	16	18	16	20	15	10	4	8	1	128	161

Out of a total of 1,455 primary notifications of pulmonary tuberculosis 1,018 were received from private and 437 from hospital practitioners, whilst in the case of non-pulmonary tuberculosis these figures are 79 and 169 respectively, forming a total of 248.

The Notification and Dispensary Registers.

In Table II is shown the number of cases on the notification and dispensary registers at the end of the year, the difference (2,184) between the figures in the respective registers representing the number of patients who, for various reasons, discontinued public treatment under this authority before reaching the "cured" stage. A few notified cases are also included in which the patients have refused to make use of the treatment facilities available.

TABLE II

	Pulmonary Tuberculosis.		Non-Pulmonary Tuberculosis.		Totals.
	Males.	Females.	Males.	Females.	
Number of cases on the Notification Register ...	2,777	2,501	694	850	6,822
Number of established cases on the Dispensary Register	1,988	1,700	424	526	4,638
Difference	789	801	270	324	2,184

In Table III is given an analysis of the 2,184 persons whose names are on the notification register but are not on the dispensary register, according to the latest information concerning them.

TABLE III

Whereabouts Known.	Pulmonary Tuberculosis.						Non-Pulmonary Tuberculosis.						Totals.
	Males.			Females.			Males.			Females.			
	State of the Disease.						State of the Disease.						
	Arrested.	Quiescent.	Active.	Arrested.	Quiescent.	Active.	Arrested.	Quiescent.	Active.	Arrested.	Quiescent.	Active.	
Totals	31	220	538	52	182	567	32	132	106	43	157	124	2,184

Tuberculosis Clinics and Dispensary System.

A statistical summary of the work of the Tuberculosis Clinics, so far as all cases on the dispensary registers are concerned, is given in Table IV, and in addition there are included a few statistics of a general nature.

TABLE IV.

DIAGNOSIS.	PULMONARY.				NON-PULMONARY				TOTAL.				GRAND TOTAL.	
	Adults.		Children		Adults.		Children		Adults.		Children.			
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
A.—NEW CASES examined during the year (excluding contacts):														
(a) Definitely tuberculous ...	639	431	34	28	54	62	58	43	693	493	92	71	1,337	
(b) Diagnosis not completed ...	—	—	—	—	—	—	—	—	44	31	13	21	1,000	
(c) Non-tuberculous ...	—	—	—	—	—	—	—	—	513	397	155	145	1,000	
B.—CONTACTS examined during the year:—														
(a) Definitely tuberculous ...	—	2	3	5	—	—	—	—	—	2	3	5	4	
(b) Diagnosis not completed ...	—	—	—	—	—	—	—	—	—	—	—	—	—	
(c) Non-tuberculous ...	—	—	—	—	—	—	—	—	45	94	166	155	4	
C.—CASES written off the Dispensary Register as:—														
(a) Recovered ...	46	48	5	8	18	18	14	12	64	66	19	20	—	
(b) Non-tuberculous (including any such cases previously diagnosed and entered on the Dispensary Register as tuberculous) ...	—	—	—	—	—	—	—	—	558	491	321	300	1,000	
D.—NUMBER OF CASES on Dispensary Register on Dec. 31st 1945:—														
(a) Definitely tuberculous ...	1,839	1,571	149	129	207	330	217	196	2,046	1,901	366	325	4,000	
(b) Diagnosis not completed ...	—	—	—	—	—	—	—	—	44	31	13	21	—	
1. Number of cases on Dispensary Register on January 1st, 1945 ... 4,342														
2. Number of cases transferred from other areas and cases returned after discharge under Head 3 in previous years ...														
3. Number of cases transferred to other areas, cases not desiring further assistance under the scheme, and cases "lost sight of" ... 561														
4. Cases written off during the year as Dead (all causes) ...														
5. Number of attendances at the Dispensary (including Contacts) ... 10,165														
6. Number of Insured Persons under Domiciliary Treatment on the 31st December ... 1,000														
7. Number of consultations with medical practitioners:—														
(a) Personal ... 10														
(b) Other ... 3,260*														
8. Number of visits by Tuberculosis Officers to homes (including personal consultations) ...														
9. Number of visits by Tuberculosis Visitors to homes of patients ... 18,960														
10. Number of:—														
(a) Specimens of sputum, etc., examined ... 2,000														
(b) X-ray examinations made in connection with Dispensary work. ... 2,000														
11. Number of "Recovered" cases restored to Dispensary Register, and included in A (a) and A (b) above... 6														
12. Number of "T.B. plus" cases on Dispensary Register on December 31st ... 1,000														

* In addition to 3,260 consultations, 2,320 reports concerning patients were sent to medical practitioners.

General Remarks.

The city death rates for the year 1945 for pulmonary and non-pulmonary tuberculosis are 0.88 and 0.14 per 1,000 respectively, making a total of 1.02 per 1,000 for all forms of the disease. The comparable rate for 1939 was 0.93 for all forms of tuberculosis. An analysis of unnotified cases of tuberculosis is given in Table VIII.

The Tuberculosis Officers continue to carry out the examination of certain recruits to the Forces in accordance with the requirements of the National Service (Armed Forces) Act, 1939, and 289 reports have been submitted to the Ministry of Labour. A further 384 reports have been rendered in accordance with the requirements of the Public Health (Tuberculosis) Regulations, 1940 (Men), and 51 reports under the Public Health (Tuberculosis) Regulations, 1942 (Women).

The Ministry of Pensions was supplied with 338 reports in respect of pensioners about to undergo or completing courses of residential treatment and 181 reports were rendered in respect of cases due to appear before Medical Boards.

MILK. It was not found necessary during the year to take any action under the Public Health (Prevention of Tuberculosis Regulations) 1925, or Public Health Act, 1936, Section 172.

CONTACTS. The Tuberculosis Officers have examined 470 persons who were known to have been in contact with infectious cases of pulmonary tuberculosis and found evidence of disease in 10 or 2·12 per cent.

Tuberculosis Welfare Department.

This Department has been administering the recommendations of the Minister of Health's Memorandum 266/T, since 3rd August, 1943, and is responsible for the assessment and distribution of financial allowances to patients suffering from Pulmonary Tuberculosis, whose cases fulfil the requirements laid down in the Memorandum. A summary of cases dealt with is given below:—

Total number of applications from 1st January to 31st

December, 1945 607

Number of above eligible for and granted allowances . . . 393

Number of above ineligible for and not granted allowances—

(a) on medical grounds	50
(b) on grounds other than medical	164—214

Total amount of allowances paid in the above period—£20,231 9s. 11d.

REHABILITATION. With regard to this part of the scheme, the number of cases dealt with by the Tuberculosis Welfare Department has considerably increased during the past year and close co-operation between this department and the Rehabilitation Department of the Ministry of Labour has been maintained.

Summary of cases dealt with during the year ending 31st December, 1945 :—

Cases referred by Ministry of Labour to Tuberculosis Officer	235
(a) Examined and found fit for light, part-time or full-time employment	177
(b) Not fit for employment	38
(c) Failed to attend for examination	9
(d) Certified as non-tuberculous	11
Letters sent by Tuberculosis Welfare Officer to patients offering advice and assistance to obtain suitable employment	510
Number availing themselves of this assistance and referred to Ministry of Labour	118
* Actual number of patients reported by Ministry of Labour as placed in employment	37
* Number of cases who obtained employment themselves ...	26
Total number of cases dealt with under Rehabilitation Scheme by Welfare Department	745

* These figures do not give an accurate or full return of patients already employed, or of those who were placed in employment, because of a considerable number of them failing to reply to letters or inform the Welfare Officer as to their position. Furthermore, it is apparent that the Ministry of Labour has not notified this department of all the cases referred to it who were actually found employment through the Scheme.

THE DISABLED PERSONS (EMPLOYMENT) ACT, 1944. So far the improvement anticipated in the number of tuberculous persons who would be placed in suitable employment after the passing of this Act has, unfortunately, not materialised. This is due mainly to the fact that the majority of employers are already employing more disabled persons than the quota of 2 per cent. decided upon by the Minister of Labour and also because the classes of employment to be officially "designated" under the provisions of Section VI of the Act, have not yet been announced.

Mass Radiography Department.

As a full-time medical staff is not yet available the Mass Radiography Unit has not so far attained full output.

It was decided to invite the medical practitioners in the city to make use of mass radiography as an aid to diagnosis in any suspicious chest cases which they might encounter. This service has considerably increased the positive findings but has proved most acceptable to the doctors and has resulted in the detection of many cases of pulmonary tuberculosis which might otherwise have remained undiscovered.

The appended table gives a brief analysis of the work of the unit for the period from November 22nd, 1944 to December 31st, 1945.

	Male.	Female.	Total.
Miniature examinations	8,945	10,862	19,807
Abnormalities :—			
Tuberculosis—Active	55	62	117
Inactive	236	186	422
Cardio vascular	38	50	88
Miscellaneous	397	223	623

TABLE V.

PATIENTS UNDER DISPENSARY TREATMENT AT THE END OF THE YEAR.

		Pulmonary.	Non-pulmonary.	Totals.	
INSURED PERSONS	Males	2	—	2	} 4
	Females	2	—	2	
NON-INSURED PERSONS	Male Adults	1	—	1	} 35
	Female Adults	22	3	25	
	Male Children*	1	3	4	
	Female Children*	—	5	5	
TOTALS ...	... ..	28	11	39	

* Under 15 years of age.

TABLE VI.

PATIENTS NOT NEEDING TREATMENT WHO WERE UNDER DISPENSARY
SUPERVISION AT THE END OF THE YEAR.

		Pulmonary.	Non-pulmonary.	Totals.	
INSURED PERSONS	Males	578	126	704	} 1340
	Females	490	146	636	
NON-INSURED PERSONS	Male Adults	74	18	92	} 882
	Female Adults	189	110	299	
	Male Children*	96	170	266	
	Female Children*	77	148	225	
TOTALS ...	... ..	1504	718	2222	

* Under 15 years of age.

Home Nursing.

The domiciliary nursing of both pulmonary and non-pulmonary cases continues to be carried out by the Liverpool Queen Victoria District Nursing Association. During the year, 81 pulmonary and 30 non-pulmonary cases were nursed in their homes, and to these cases 5,204 visits were paid. The Garston and Grassendale Nursing Association and the Woolton and District Society have dealt with cases outside the area supplied by the District Nursing Association.

Domiciliary Treatment.

At the end of the year, 1,425 patients remained under domiciliary treatment of whom 1,076 were persons insured under the National Health Insurance Act, and in receipt of treatment from their panel doctors and 349 were not insured and were under the treatment of District Medical Officers or doctors of their own choice. The domiciliary reports received relating to insured persons numbered 389. Table VII shows the position at the end of the year.

TABLE VII.

PATIENTS UNDER DOMICILIARY TREATMENT AT THE END OF THE YEAR.

		Pulmonary.	Non-pulmonary.	Totals.
INSURED PERSONS	Males	697	27	724
	Females	319	33	352
NON-INSURED PERSONS	Male Adults ...	111	8	119
	Female Adults ...	179	15	194
	Male Children*	10	10	20
	Female Children*	9	7	16
TOTALS ...	... ..	1325	100	1425

* Under 15 years of age.

Co-operation.

During the year, 1,240 reports were rendered by the Tuberculosis Officers in respect of school children. Many cases have also been examined at the request of organisations such as the Liverpool Personal Service Society; Child Welfare Association; Maternity and Child Welfare Department, etc.

Summary of Treatment, etc., carried out in Sanatoria in connection with the working of the Tuberculosis Scheme.

Operations (Thoracic and other)...	412	*X-ray Examinations (Films) ...	6,759
Gold and other treatments	169	„ „ (Screenings).	15,238
Light Therapy (Exposures) ...	11,435		
Artificial Pneumothorax (New In-		Dental Treatment (Extractions)...	801
ductions)	215	„ „ (Fillings) ...	139
Artificial Pneumothorax (Refills)..	16,297	„ „ (Miscellaneous).	308

* Includes cases referred by the Tuberculosis Clinics.

Notification and Deaths.

During the year 54 persons within the city died from tuberculosis without notification having been effected prior to death. The result of enquiry into the reasons for such failure to notify are summarised in

TABLE VIII.

DISEASE.	Reasons for Non-notification of Persons who died within the City.						
	No. of Persons who died within the City.	No. of Cases not notified before death.	Diagnosis made at a Post-mortem Examination. (Includes Coroner's Cases.)	Diagnosis delayed owing to Clinical difficulties.	Doctor thought case had been notified by another Practitioner.	Notification forgotten.	Patient died before notification could be effected.
Pulmonary Tuberculosis	605	27 4.4%	5 0.9%	9 1.6%	7 1.1%	3 0.4%	0.4%
Non-Pulmonary Tuberculosis	96	27 28.1%	7 7.2%	12 12.5%	— —	3 3.1%	5.7%

Deaths from Tuberculosis.

The number of deaths from pulmonary and non-pulmonary tuberculosis in Liverpool from 1933 to 1945, together with the number of new cases notified and the death rates which prevailed in England and Wales are given in Tables IX and X where case rates for Liverpool are also shown.

TABLE IX.

DEATHS FROM PULMONARY TUBERCULOSIS.

Years.	Cases notified.	Case rate per 1,000 population.	Number of deaths.	Death rate per 1,000 Liverpool.	Death rate per 1,000 England and Wales.
1933.....	2,279	2.63	1,009	1.19	0.69
1934.....	1,903	2.20	867	1.03	0.63
1935.....	1,697	1.96	812	0.97	0.60
1936.....	1,645	1.90	713	0.85	0.58
1937.....	1,555	1.79	684	0.82	0.58
1938.....	1,378	1.59	666	0.81	0.53
1939.....	1,213	1.47	647	0.81	0.54
1940.....	1,311	1.73	761	1.01	0.59
1941.....	1,302	1.90	699	1.02	0.60
1942.....	1,370	2.04	653	0.97	0.54
1943.....	1,479	2.23	670	1.01	0.56
1944.....	1,441	2.16	597	0.90	0.52
1945.....	1,455	2.13	605	0.88	0.52

TABLE X.

DEATHS FROM NON-PULMONARY TUBERCULOSIS.

Years.	Cases notified.	Case rate per 1,000 population.	Number of deaths.	Death rate per 1,000 Liverpool.	Death rate per 1,000 England and Wales.
1933.....	654	0·75	148	0·17	0·13
1934.....	585	0·67	129	0·15	0·13
1935.....	502	0·58	123	0·15	0·11
1936.....	445	0·51	126	0·15	0·11
1937.....	388	0·45	112	0·13	0·11
1938.....	386	0·45	103	0·12	0·10
1939.....	317	0·38	99	0·12	0·09
1940.....	274	0·36	122	0·16	0·11
1941.....	305	0·44	147	0·21	0·13
1942.....	348	0·52	124	0·18	0·11
1943.....	335	0·51	103	0·15	0·11
1944.....	250	0·37	82	0·12	0·10
1945.....	248	0·36	96	0·14	0·10

TABLE XI.

AGE PERIODS OF DEATHS FROM TUBERCULOSIS DURING 1945.

Age Periods.	PULMONARY.		NON-PULMONARY.	
	Males.	Females.	Males.	Females.
0—	—	2	2	4
1—	5	2	16	10
5—	—	3	8	4
10—	1	5	3	6
15—	5	29	4	10
20—	32	48	3	5
25—	74	70	3	4
35—	68	40	6	2
45—	78	23	—	1
55—	75	6	—	3
65—	32	7	2	—
TOTALS ...	370	235	47	49

VENEREAL DISEASES.

The Clinics operated by the Corporation during 1945 were :—

Seamen's Dispensary—Males only.

Mill Road Infirmary—Females only.

Royal Infirmary—Males and Females.

Edge Lane Hospital—Females only.

The Seamen's Dispensary and the Royal Infirmary are open all day for treatment of these diseases in the male. At Mill Road Infirmary, the Royal Infirmary and Edge Lane Hospital treatment for females is provided each day at hours convenient to the greatest number of patients.

All cases of venereal diseases requiring in-patient treatment are now concentrated in the special wards at Belmont Road Hospital. Periodic examinations of the children born and apparently free from disease are arranged. Infected parents are encouraged to attend the clinics until cure is accomplished. Further pregnancies are supervised and prophylactic treatment for congenital syphilis is given throughout.

It is becoming increasingly realised that the infected unit is not the individual but the family and thus whole families are examined, and, if need be, treated as the result of one diagnosed case. The maternity wards in particular of the various hospitals have referred numerous cases to the clinics for treatment, while the ante-natal centres throughout the city have sent many patients for diagnosis and treatment.

An unadvertised clinic at the Royal Infirmary deals with many late cases and their families. The sources of supply are the general wards, the ophthalmic and aural departments of general hospitals and the special hospitals for diseases of the eye, ear and throat.

The employment of a nurse almoner and contact tracer has proved of great value in connexion with the operation of Regulation 33B and with the defaulting female. Form I 33B was responsible for the notification of 186 females and 3 males on one occasion only and of 13 females on

two occasions. Of these, 90 females and no males were brought under observation.

The issue of contact slips to patients attending and whose contacts were known to them resulted in 140 females and 9 males being examined.

During the year research on the treatment of syphilis by penicillin has been in progress and this drug has been used in the treatment of cases of gonorrhœa resistant to other methods.

The following table summarises the work of the Clinics for the year 1945 :—

	Seamen's Dis- pensary. Males only.	†Royal Infirmary.		Mill Road Infirmary and †Belmont Road Hospital.		†Edge Lane Medical Home. Females only.	TOTAL. Males and Females.
		Males.	Females.	Males.	Females.		
New cases	5,307	1,238	946	7	822	95	8,415
Old and new patients							
Total attendances	35,075	12,413	13,347	235	16,763	95	77,928
In-patient days ...	—	68	130	8,743	8,501	4,351	19,793

†Beds for In-patients are reserved at these Institutions.

There was an increase in the number of new cases (6,819 in 1944 compared with 8,415 in 1945), but a decrease in the number of attendances (82,022 and 77,928 in 1944 and 1945), and in in-patient days of treatment (22,029 and 19,793 respectively).

During the war, early syphilis has increased in both sexes but most strikingly in the female population :—

1939.		1940.		1941.		1942.		1943.		1944.		1945.	
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
187	25	354	59	584	139	567	260	507	279	417	278	509	315

SCABIES.

The Scabies Order, 1941, under the Emergency Powers (Defence) Regulations gives the Medical Officer of Health, where he is satisfied, upon information given, that a person is in a verminous condition, power to cause such a person to be medically examined in suitable premises and further give him or her notice that he must present himself at a place where suitable arrangements have been made for him or her to be disinfected.

The treatment of scabies consists in giving the patient a hot bath, applying a suitable remedy, such as a 25 per cent. emulsion of benzyl benzoate and disinfection of clothing.

At the close of 1941 scabies was becoming widely prevalent. There were then 4 cleansing stations available for the treatment of scabies. A further unit was opened in Belmont Road Emergency Hospital in 1941. During 1942 7 further centres were opened and 2 more in 1943. Of these six have since been closed following the decline of the epidemic. The existing units are :—

(1) Stalisfield Avenue, Norris Green	...	...	2 Baths
(2) Carnegie Welfare Centre	...	...	2 „
(3) Alder Hey Hospital	...	...	3 „
(4) 50, Eldon Place	...	...	1 Bath
(5) South Tuberculosis Dispensary, Park Road	...	...	3 Baths
(6) Belmont Road Hospital	...	...	7 „
(7) 71, Everton Road	...	...	4 „
(8) Clifton Street, Garston	...	...	2 „

The total number of baths thus provided is 24, against 31 in 1944.

The total number of cases of scabies thus dealt with in 1945 was 4,686, as against 10,090 in 1944 and 15,845 in 1943. The new cases now average 90 per week as against 104 per week in 1944 and 260 in 1943. The contacts of school children are followed up and adult or pre-school cases brought to light received treatment. It will be seen that these methods have been successful in combating the epidemic which seemed so formidable in 1942. The number of sessions held in the remaining clinics have been reduced proportionally to the reduced incidence.

INFECTIOUS HOSPITALS and SANATORIA.

During 1945 the hospital accommodation for infectious cases was as follows:—

City Hospitals North (182 beds), South (96 beds), East (178 beds), Fazakerley (118 beds), Fazakerley Annexe (149 beds), total 732 beds. Fazakerley Sanatorium and Annexe (447 beds), Cleaver Sanatorium 225 beds, total, 672 beds.

The following tables, prepared by the medical staff of each of the city hospitals, show the number of patients admitted, the nature of the illness in each case and the results of treatment, during the year 1945:—

DISEASES	Remaining Dec. 31st, 1944.	Admitted during the year.	Transferred from other City Hospitals.	Total under Treatment during the year.	Transferred to Convalescent Hospital.	Transferred to other City Hospitals.	Discharged.	Remaining at end of year.	Died within 48 hours of Admission.	Total Deaths.
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City Hospital North, Netherfield Road.

Scarlet Fever	51	350	3	404	—	6	369	29	—	—
Diphtheria	42	184	5	231	—	6	170	50	—	5
Other Diseases	22	310	5	337	—	5	309	22	—	1
Totals	115	844	13	972	—	17	848	101	—	6

City Hospital South, Grafton Street.

Scarlet fever	23	258	3	284	—	—	248	36	—	—
Measles	2	6	—	8	—	2	6	—	—	—
Tropical Diseases	22	375	—	397	—	—	383	—	—	2
Other Diseases	1	18	—	19	—	—	19	—	—	—
Totals	48	657	3	708	—	14	656	36	—	2

DISEASES.			Remaining Dec. 31st, 1944.	Admitted during the year.	Transferred from other City Hospitals.	Total under Treatment during the year.	Transferred to Convalescent Hospital.	Transferred to other City Hospitals.	Discharged	Remaining at end of year.	Died within 48 hours of Admission.
City Hospital East, Mill Lane, Old Swan.											
Scarlet Fever	...	...	29	290	10	329	—	5	266	58	—
Measles	...	...	16	119	34	169	—	10	156	2	—
Diphtheria	...	...	60	229	16	305	—	8	238	48	4
Other Diseases	...	...	36	406	26	468	—	11	428	24	1
Totals	...	...	141	1044	86	1271	—	34	1088	132	5
City Hospitals, Fazakerley.											
Scarlet fever	...	...	39	287	31	357	—	18	299	39	1
Enteric fever group	...	...	3	16	5	24	—	1	18	4	1
Diphtheria	...	...	52	223	27	302	—	19	231	45	4
Measles	...	...	9	110	12	131	—	14	104	13	—
Whooping Cough	...	...	24	79	8	111	—	8	94	2	2
Other diseases	...	...	87	934	263	1284	—	93	1061	105	12
Totals	...	...	214	1651	346	2211	—	155	1807	208	20
Fazakerley Sanatorium.											
Tuberculosis	...	...	399	348	82	829	—	35	310	380	—
Cleaver Sanatorium.											
Tuberculosis	...	...	203	185	61	449	—	52	153	207	—
Totals—All Isolation Hospitals and Sanatoria.											
All Diseases	...	...	1120	4729	591	6440	—	307	4862	1064	25

General and Children's Hospitals and other Institutions.

Statement of Admissions, Discharges, Births, Deaths, and Transfers.

Hospital or Establishment.	Remaining 31/12/44	Admitted.	Trans- ferred to	Born.	Dis- charged.	Trans- ferred from	Died.	Remaining 29/12/45
Administered under the Poor Law Acts :—								
Belmont Road Institution ...	1,590	8,614	645	—	6,488	790	1,976	1,595
Kirkdale Homes ...	1,309	223	422	—	336	118	226	1,274
Olive Mount Children's Hospital ...	375	1,438	601	—	1,560	394	40	420
Cottage Homes, Fazakerley ...	389	101	171	—	209	75	—	386
Shaw Street Boys' Home ...	35	13	12	—	23	—	—	37
Seafeld House (Greaves Hall) ...	84	20	2	—	9	4	—	93
Administered under the Public Health Act :—								
Walton Hospital ...	1,160	14,870	153	3,069	16,816	246	1,059	1,131
Alder Hey Hospital ...	1,121	8,409	99	—	8,126	251	434	818
Smithdown Road Hospital ...	630	9,725	136	2,190	10,799	469	637	776
Broadgreen Emergency Hospital ...	560	9,425	72	2,031	10,926	160	384	618
TOTAL ...	7,253	52,838	2,313	7,290	55,283	2,507	4,756	7,130

NOTE.—Emergency Medical Service cases are included in above Return.

MUNICIPAL HOSPITALS and INSTITUTIONS.

General Review of Hospital Services.

The Liverpool Municipal Hospitals have continued to carry a heavy burden of work during the year 1945, as in earlier war years, and this work was considerably increased from the date of the Normandy invasion. Large numbers of casualties among the forces were treated and several special centres under the Emergency Medical Services were developed. In addition to the Skin Unit at Belmont Road Emergency Hospital and the Orthopaedic Unit at Alder Hey Hospital which have been in operation since early in the war, other important units were developed, mainly in 1944, namely, (*a*) a thoracic surgery unit at Broadgreen Hospital, (*b*) a facio-maxillary surgical unit at Broadgreen Hospital, (*c*) a peripheral nerve injury unit at Alder Hey Hospital, and (*d*) a tropical diseases unit at Smithdown Road and Grafton Street Hospitals. The work done in these units, being highly specialised, has been of corresponding value in the war effort.

The development of these special units was only made possible by the appointment of a number of specialists—medical, surgical and dental—under the E.M.S., to the hospitals concerned. I would like again to pay tribute to the extremely valuable work that has been carried out by them in these centres. It is only by the existence of a strong Medical School and Tropical Diseases School in Liverpool that it has been possible to develop these units; on the other hand, the provision of wards, laboratory, operative and other facilities and medical and nursing staff by the municipal hospitals has been equally essential. It is the combination of these two services that has produced such admirable results, a combination which is of good augury for the future.

The special three-month periods of training in Tropical Diseases for trained nurses in association with the staff of the School of Tropical Medicine were continued. This secured an adequate supply of nurses at the unit and from it a steady stream of well-trained nurses has gone out to the forces and colonies.

DETAILS OF ADMISSIONS, DISCHARGES, ETC., AND WORK UNDERTAKEN AT THE FIVE MUNICIPAL HOSPITALS FOR PERIOD 1941 to 1945.

	WALTON HOSPITAL					SMITHDOWN ROAD HOSPITAL					MILL ROAD INFIRMARY					ALDER HEY HOSPITAL					BROADGREEN EMERGENCY HOSPITAL					BELMONT ROAD EMERGENCY HOSPITAL				
	1941	1942	1943	1944	1945	1941	1942	1943	1944	1945	1941	1942	1943	1944	1945	1941	1942	1943	1944	1945	1941	1942	1943	1944	1945	1941	1942	1943	1944	1945
*Admissions	16,209	17,090	16,390	16,406	14,870	7,276	7,907	8,223	8,292	9,725	3,081	—	—	—	—	7,981	8,251	8,371	9,139	8,409	1,986	3,482	7,368	9,652	9,425	9,533	8,643	7,371	8,411	8,614
*Transferred to	205	181	84	296	153	152	68	78	101	136	66	—	—	—	—	83	91	77	96	99	—	48	148	74	72	633	493	649	765	645
*Born	2,409	3,258	3,602	3,486	3,069	1,211	1,892	2,046	2,068	2,190	482	—	—	—	—	—	—	—	—	—	—	—	267	1,736	2,031	—	—	—	—	—
*Discharged	16,745	18,588	18,399	18,698	16,816	7,417	8,473	8,775	9,181	10,799	3,211	—	—	—	—	7,173	7,475	7,651	8,182	8,126	1,913	3,108	7,158	10,756	10,926	7,702	7,179	5,859	6,291	6,488
*Transferred from	309	334	286	275	246	506	541	614	603	469	102	—	—	—	—	230	242	344	431	251	—	20	95	221	160	769	643	638	927	790
*Died	1,773	1,540	1,477	1,165	1,059	868	835	934	660	637	278	—	—	—	—	637	463	487	347	434	58	231	383	364	384	1,812	1,467	1,446	1,902	1,976
Surgical Operations	5,580	6,432	6,119	6,476	6,175	2,810	2,991	3,019	2,736	2,965	1,277	—	—	—	—	2,375	2,520	2,239	3,075	3,005	—	2,242	3,406	4,177	4,627	—	—	—	—	—
Out-Patient Attendances	67,412	79,991	82,070	84,474	77,784	41,713	42,022	48,248	48,664	49,962	58,071	41,344	76,338	77,514	73,379	15,215	41,081	47,593	45,265	50,182	3,772	8,290	20,991	33,262	39,488	25,216	27,871	28,612	31,083	37,193
Pathological Examinations	27,742	30,697	28,895	26,191	25,513	38,769	52,639	53,225	57,290	45,631	8,219	—	—	—	—	19,767	21,643	19,861	17,274	19,703	—	10,203	14,677	19,132	16,482	—	—	—	—	7,506
Post-mortems	962	930	890	708	735	137	195	215	210	122	51	—	—	—	—	118	107	130	131	151	—	42	95	89	98	—	—	—	—	25
X-Ray Examinations (Radiographs)	23,441	22,463	23,528	26,752	28,231	9,343	11,455	14,823	16,126	17,110	7,829	—	—	—	—	13,150	13,361	15,382	17,220	18,452	—	8,124	19,694	27,467	32,241	—	—	—	—	—

*These figures correspond with the returns to the Ministry of Health and are made up to the last week-end of each year. This accounts for the slight variation between the figures returned by the respective Hospitals which are for the actual Calendar year.

NOTE.—Mill Road Infirmary statistics compiled to date of evacuation, viz. :—4,541, with the exception of O.P. attendances which are for the full year 1945.

The building up of these units has involved certain structural alterations which have been carried out at the cost of the Ministry of Health under the E.M.S. Scheme. The latest provision by the Ministry was for a rehabilitation unit in a prefabricated hut at Broadgreen Hospital mainly for the thoracic surgery unit.

STRUCTURAL WORK

(a) SANATORIA. Apart from the above alterations sanction was obtained for carrying out certain additions to the two Sanatoria.

At Clcaver Sanatorium the alteration in the character of the sanatorium required additional Nurses' Home accommodation and the provision of a lecture theatre and artificial pneumothorax room. The two latter were housed by enclosing a verandah and a three-storey extension of the Nurses' Home providing 12 bedrooms was built and occupied early in 1945.

At Fazakerley Sanatorium the need for provision for the surgical treatment of pulmonary tuberculosis became pressing. Sanction was obtained from the Ministry of Health for the construction of two single-storey wards, each of 24 beds, together with a dining and recreation room and a heating chamber, united by a corridor which also connected with the building used for radiographic and operative work. This work was put in hand in the autumn of 1944, but owing to the inclemency of the weather in the autumn and winter the difficulty in obtaining certain materials, and shortage of labour, this construction is still in hand at the time of writing as is the addition to the Nurses' Home of 24 bedrooms.

(b) Provision was made for the formation of a considerable maternity unit at Mill Road Infirmary in "B" and "D" Blocks. This provision includes:—

- (1) An admission and reception unit.
- (2) Seven labour cubicles with sterilizer room.
- (3) Ante-natal ward with six isolation cubicles.
- (4) Unit for premature babies.
- (5) Rehabilitation of operating theatre suite.
- (6) Equipment of two wards as lying-in wards; this will be extended to four after reparation of war damage.

The Administrative Block including accommodation for resident medical and nursing staff, kitchen, offices, etc., was also put into repair and decorated. This work is still in progress but it is hoped that it will be completed by the middle of 1946.

The total cost of this work to date is estimated at £11,000 of which £4,350 is attributed to war damages.

(c) A deep X-ray therapy unit with mould and preparation rooms and a diagnostic X-ray set was built in "Y" Block at Walton. The Westinghouse deep therapy set has not yet been delivered.

(d) Accommodation was provided for the Child Health teaching unit in Ward A3 at Alder Hey Hospital, provision including (1) Lecture Room, (2) Museum, (3) Offices.

(e) Certain re-arrangements of wards, etc., at Broadgreen Hospital provided better out-patient and reception facilities. The kitchen was greatly improved by the removal of the central chimney stack and the extension of the kitchen and offices. The dining-hall, temporarily occupied as an out-patient department, was restored to its original function.

MATERNITY CASES. Post-natal patients from Walton and Smithdown Road Hospitals continued to be transferred to the Hydropathic Hospital, Southport, and to Rosefield Hall, Southport. This arrangement relieved the pressure on the lying-in accommodation at Walton. The units at Southport were staffed by Walton Hospital. The number of births at Walton was 3,612 in 1943, 3,459 in 1944, and 3,197 in 1945, and those at Smithdown Road, 2,098, 2,061 and 2,205 in the same three years. The new maternity unit, approved for the training of pupil midwives, which was opened in Broadgreen Hospital, late in 1943, recorded a total of 1,722 births for the year 1944 and 2,073 in 1945. The total rise in the number of births occurring in Municipal Hospitals was from 5,710 in 1943 to 7,475 in 1945.

TUBERCULOSIS. Adult cases of tuberculosis were admitted mainly to the Sanatoria at Fazakerley and Heswall and to the tuberculosis unit at Walton Hospital. Cases of tuberculosis in children were admitted to the William and John Jones Convalescent Home, Rhyl. Two wards at Broadgreen Hospital were available for the reception of cases of

tuberculosis, and temporary accommodation was occasionally provided at Belmont Road Emergency Hospital. Nevertheless the loss of beds by the change of user of Broadgreen Sanatorium exercised a cumulative effect and two wards at Sparrow Hall were converted to Sanatorium use and came into occupation early in 1944 and a third in 1945. Some cases for thoracic surgery were admitted to Broadgreen Thoracic Surgery Unit, most of the remainder receiving such treatment in Fazakerley Sanatorium and the remainder in Cleaver Sanatorium.

INFECTIOUS DISEASES. Diphtheria continued to be the most pressing problem although the numbers of cases again showed an additional decline in comparison with 1943. Measles were becoming prevalent in the fourth quarter of the year. Provision was made for the admission of cases of minor infections such as mumps, chickenpox and rubella among service units and from on shipboard.

SANITARY ADMINISTRATION.

During the year, sanitary inspectors made 161,160 inspections and visits for the investigation and abatement of nuisances. 28,318 complaints of nuisances were received as compared with 24,687 the previous year. The total number of nuisances reported was 46,651. The number of notices served for the abatement of nuisances was 23,163 informal, and 16,624 statutory, 2,495 of these being served for the provision of dustbins. In 529 cases legal proceedings were instituted for failure to comply with notices served under the Public Health Act, 1936, etc.

Departmental References.

The co-operation which the Public Health Department receives from other Corporation departments is fully appreciated, as many sanitary defects are brought to notice and dealt with immediately. The number of references so received was 4,082, whilst the number of references to other departments was 5,887.

Infected Houses.

The sanitary inspectors made 8,314 investigations relating to cases of infectious disease, involving 9,084 visits to infected houses, and 1,146 visits to phthisis cases, also 585 inquiries relating to suspected smallpox contacts.

Closet Accommodation.

There still remain 95 privies and 75 pails on farms and outlying houses in the city where sewers are not reasonably available.

Drain Testing.

1,262 drainage systems were tested, 97 by colour test, of which 52 were positive and 45 negative; 308 by smoke rocket test, of which 157 were positive and 151 negative; 857 by smoke machine test, of which 368 were positive and 489 negative. In some cases the assistance of the City Engineer's Department has been utilised. Where defects have been revealed by these tests, repairs were carried out.

Factories and Workplaces Inspection.

Factories Act, 1937, and Public Health Act, 1936.

All factories and workplaces are visited by inspectors appointed under the Act, the various premises being grouped in districts so as to secure the maximum number of visits in the minimum time.

Register of Factories, Section 8 (3).

The total number of factories (including bakehouses) on the register was 4,883, viz.:—

With mechanical power	...	...	2,553
Without mechanical power	...	...	2,330

7,199 visits were made to factories, 469 in consequence of complaints to the department, 6,730 in the course of ordinary routine inspection. During these visits 847 defects were found, in respect of which 80 informal notices and 176 statutory notices were issued on owners or occupiers, the defects not remedied at the end of the year being 29.

Register of Workplaces (including Offices).

The number of workplaces on the register was 3,250. 2,407 visits were made to workplaces, and 1,497 in respect of offices. There were 138 defects, 42 of which were unsuitable or defective sanitary conveniences, 7 inadequate ventilation, and the remainder want of cleanliness, the defects not remedied at the end of the year being 29.

Outworkers. Factories Act, 1937, Sections 110 and 111.

124 visits were made to premises and no instance of employment in unwholesome premises was found.

Rag Flock Acts, 1911 and 1928.

Ten visits to two factories in which rag flock is manufactured and 31 visits to premises where rag flock was used, were made, 28 samples of rag flock being taken and were in accordance with the standard of cleanliness required by the rag flock regulations.

Bakehouses.

The number of bakehouses in use at the end of the year was 336, of which 113 were without mechanical power, 13 of these being basement,

and 235 with mechanical power, of which 28 were basement bakehouses. 1,289 visits were made to bakehouses. 56 informal notices and 39 statutory notices were issued in respect of want of cleanliness, all of which were complied with.

Restaurants and Café Kitchens.

All kitchens in connection with cafés and restaurants are regularly visited, particular attention being paid to the cleanliness of the premises and of the workers employed in the kitchens. There were 376 in use at the end of the year, 2,730 visits were made to restaurant and café kitchens, 56 informal and 233 statutory notices being issued in respect of want of cleanliness, unsuitable or defective sanitary conveniences, accumulation or deposit of refuse in rooms, the defects not remedied at the end of the year being 135.

Licensed Premises.

1,969 visits were made to licensed premises. Measures have been taken to maintain a good standard of cleanliness. 355 statutory notices were issued, and with the exception of premises requiring structural alteration, the carrying out of which has been retarded owing to the shortage of labour and materials, the remaining defects were remedied.

Offensive Trades.

There were on the register of offensive trades at the end of the year 76 businesses, and 493 visits were made to these premises.

Fish Friers' Premises.

At the end of the year there were 404 fish friers' premises within the city, and 1,424 visits were made.

Furniture Removers.

106 visits were made to the premises of furniture removers and 136 vans were inspected and found in a clean condition.

Employment Agencies.

These premises are controlled by byelaws made under the Liverpool Corporation Act, 1927, and visits are made from time to time to ascertain that the requirements of the byelaws are being carried out. There are at present 26 licensed employment agencies on the register.

Railway Carriages and Fish Arrivals.

During the year 332 visits were made to the main line railway stations within the city to ascertain if the railway carriages and fish arrival platforms were in a clean condition. All were found to be clean.

Shops Acts, 1912 to 1938, and Young Persons (Employment) Act, 1938, Part I.

Inspection of shops and other premises throughout the City, affected by the provisions of the above Acts, has been carried out by Shops Inspectors, who have also applied to shops the appropriate provisions of the Public Health Act, 1936, the Food and Drugs Act, 1938, and the Rats and Mice (Destruction) Act, 1919.

During the course of the year, Shops Inspectors relinquished the duties undertaken by them as Enforcement Inspectors under the Ministry of Food, and were thereby enabled to devote more attention to the work of this department.

Routine inspection of shops has been carried out as far as possible, and despite restrictions on the use of labour and materials, good progress has been made in the work of remedying defects and unfavourable conditions, unavoidably delayed by war-time emergency, particularly in relation to matters affecting the welfare of shop workers, and the cleansing of shops.

Shopkeepers generally, have co-operated in the measures taken to secure improvement in compliance with the above Acts. Hours of employment of Shop Assistants and Young Persons have been improved as a result of the voluntary closing of shops at hours much earlier than those fixed by the Shops Acts.

Shopkeepers favour the continuance of earlier closing, which has been encouraged by compulsory early closing during the winter period under Defence Regulation 60AB, and customers have co-operated without being deprived of facilities for obtaining essential requirements.

In accordance with the requirements of the Public Health Act, 1936, Section 205, enquiries have been made by a female shops inspector, with reference to the employment of women after child-birth, and in this

connection 276 visits were made to factories within the city to ensure that the appropriate requirements of the Act are complied with. The total number of visits to shops was 58,313, and 86 special complaints were investigated under the various enactments. The number of shops registered was 2,401.

In connection with the closing of shops on the weekly half-holiday, 40,052 visits were made, whilst the visits on Sunday amounted to 1,681. Re-visits in connection with contraventions numbered 2,625, calls incidental to the Shops Acts were 3,539, including premises visited respecting nuisances dealt with under the Public Health Act. Fourteen informations for contraventions of the Shops Acts were laid and the defendants convicted; the fines amounted to £5 and £1 4s. 0d. costs. Warning letters were sent in 311 instances regarding minor offences. For the purpose of the Young Persons (Employment) Act, 1938, 84 visits were made to premises other than shops, revisits being required in 2 cases in connection with the provision of prescribed notices.

Food Control.

The total number of visits made by Enforcement Inspectors was 1,258, and the complaints investigated included 20 cases in which informations were laid. The fines totalled £33 10s. 0d., and costs allowed amounted to £3 6s. 0d. Eight cases were withdrawn.

Theatres, Cinemas, etc.

722 visits were made by the Shops Inspectors, and in 5 cases minor defects observed, these being remedied on the attention of the managers being called thereto.

Common Lodging Houses.

At the commencement of the year 1945, there were on the register 20 Lodging Houses providing accommodation for 1,214 lodgers. During the year one house ceased to be used as a Common Lodging House when the Keeper who had appealed in pursuance of Section 239 of the Public Health Act, withdrew his appeal.

19 applications were received from persons for the renewal of registration as keepers, which were granted for a further period of twelve months.

At the end of the year, there were on the register 19 lodging houses providing accommodation for 1,177 lodgers, 15 houses with accommodation for 1,023 males and four houses with accommodation for 154 females. The number of inspections of these houses was 581. In 40 cases informal action was taken for infringements of the byelaws, and in 35 cases the requirements were complied with. 386 statutory nuisances were found upon inspection of the lodging houses, and of this number 379 were abated.

Houses Let-in-Lodgings.

During the year, 3,565 inspections were made of houses occupied by members of more than one family. Offences were observed in 50 houses due to dirty floors, walls and ceilings, yards and water-closets, stairs and passages not washed, and beds, bedclothes and bedding dirty or verminous. Informal action was taken in 40 cases, and of this number all cases were abated. Formal action was taken in 10 cases and these were later complied with.

Seamen's Lodging Houses.

At the commencement of the year there were 108 Seamen's Lodging Houses on the register, and 28 applications were received from persons for Licences to keep a Seamen's Lodging House, and schedules of work necessary to be carried out in order to comply with the byelaws have been sent to the keepers concerned. The keepers of 17 Seamen's Lodging Houses have been licenced, and applications were received for renewal of these licences, which were granted.

The number of contraventions of the byelaws totalled 7,326. Of this number 4,409 were remedied, and in the majority of the other cases the works are in progress or are about to be commenced. The number of inspections of these houses was 2,395. 54 houses have ceased to be used as seamen's lodging houses, and at the end of the year there were 82 Seamen's Lodging Houses on the register.

The Scabies Order, 1941.

COMMON LODGING HOUSES.—581 inspections of 19 Common Lodging Houses were made under the above Order. Body lice were found in 31 beds and bedding from 10 houses. 27 beds and bedding were disinfested by the Department, 3 by the keepers concerned, and 1 bed was

destroyed. 30 persons said to have occupied the verminous beds were advised to attend hospital for treatment and cleansing, 7 of whom attended. The bed bug was found in one lodging house and in 47 beds, and the premises and beds were disinfested.

SEAMEN'S LODGING HOUSES. 2,395 inspections were made of 136 Seamen's Lodging Houses under the above Order. Bed bugs were found in 10 lodging houses, and in 10 beds. 10 beds were disinfested by the keepers concerned. All beds inspected were found to be free from body lice.

PRIVATE DWELLING-HOUSES.—There were also three instances where bedding was found to be infested with lice and one case where a dwelling-house was infested, the necessary disinfestation being carried out by the department.

Canal Boats.

Three new boats were registered, making a total of 398 canal boats on the register at the end of the year, with a population of 281 males and 11 females. The number of inspections of these boats was 1,580, 27 contraventions were found on 19 boats, and of this number 21 contraventions were remedied. 19 notices were issued to owners.

The Hydrogen Cyanide (Fumigation) Act, 1937.

Official notice has been received in respect of 26 fumigations under the Hydrogen Cyanide (Fumigation) Act, 1937. 5 dwelling-houses and 21 warehouses were satisfactorily fumigated under the supervision of the sanitary inspectors.

Miscellaneous.

Stables within the city are systematically visited by the district sanitary inspectors, constant attention being paid to the frequent removal of manure and to general sanitation. The total number of visits to stables during the year was 3,282, the number occupied was 439, and the number disused was 949. 34 visits were made to manure depots.

MARINE STORES. During the year 49 visits were paid to 10 marine stores, and in 8 cases nuisances were found and the necessary steps taken for their abatement.

PARKS. Fortnightly visits are paid to all public sanitary conveniences within parks and gardens throughout the city to ascertain if they are kept in a clean condition and in good repair. 311 visits were paid and in 12 instances they were found to be incorrect. The necessary action was taken to remedy the defects.

POULTRY DEPOTS. 12 poultry depots were visited fortnightly and no nuisances were found.

SCHOOLS. 1,902 visits were made to all schools, and in 25 instances defects were found. The necessary steps were immediately taken to have the defects remedied.

Court and Alley Inspections.

973 inspections were made of courts and alleys, and 1,605 inspections of water-closets, the visits being made weekly by sanitary inspectors to ascertain whether these common water-closets are kept in a clean condition.

Prohibition of Sale of Verminous Furniture, etc.

242 visits have been paid to premises, and no infringements were observed.

Removal of Remains.

Under the terms of licences issued from the Home Office, sanitary inspectors supervised the exhumation and re-interment of 6 bodies during the year.

Rats and Mice (Destruction) Act, 1919.

The Infestation Order, 1943, S.R. & O. 680.

During the year the Sanitary Inspectors and rodent exterminators made 116,810 visits to buildings and lands to ascertain if they were infested by rodents; 1,920 buildings and lands were found to be infested by rats or mice, and 614 notices were served upon the persons responsible under the above-mentioned Act and Order.

15,463 rats were collected; of this number 10,078 were caught in traps and 5,385 dead rats were collected as the result of poisoning operations. 12,826 rats were brown and 2,637 black. 1,168 rats were examined by the City Bacteriologist and found to be free from plague, and the remainder were burnt. 3,793 mice were caught and of this number 16 were examined by the City Bacteriologist and the remainder were burnt.

Disinfestation of rodent-infested lands and buildings by the use of poisons, in accordance with the recommendation of the Infestation Division of the Ministry of Food, was commenced by this department on the 4th October, 1943, and is proceeding with satisfactory results. It is estimated, using the formula employed by the Ministry of Food for calculating the "kill", that a total of 35,159 rats were destroyed by the use of poisons within buildings and lands.

The total number of rats destroyed by trapping and poisoning during the year is calculated to be 45,237. This total does not include rats destroyed in sewers as the result of poisoning operations carried out by the City Engineer and Surveyor's Department.

Table No. 1 indicates the number and species of rats and mice collected as the result of trapping and poisoning, and the number examined during the year 1945. Table No. 2 indicates the number of buildings and lands disinfested from rats and mice during the year. Table No. 3 indicates the total poison baits, in ounces, consumed by rodents within infested buildings and lands and the estimated number of rats destroyed by poisoning, and Table No. 4 indicates the total rats destroyed by trapping and poisoning during the year 1945.

TABLE No. 1.

TABLE I.

NUMBER AND SPECIES OF RATS AND MICE DESTROYED AND EXAMINED IN THE
CITY OF LIVERPOOL DURING THE YEAR 1945.

	Buildings and Land.			Sewers.		Total Examined.		Total Burnt.		Total Rats.	Total Mice.
	Rats Black.	Rats Brown.	Mice.	Rats Black.	Rats Brown.	Rats.	Mice.	Rats.	Mice.		
January	91	433	366	—	501	132	—	893	366	1,025	366
February	211	233	217	—	375	91	—	728	217	819	217
March	158	510	306	—	539	112	—	1,095	306	1,207	306
April	103	475	274	—	529	128	—	979	274	1,107	274
May	163	446	258	—	582	100	—	1,091	258	1,191	258
June	164	411	310	—	617	110	—	1,082	310	1,192	310
July	280	505	342	—	684	76	—	1,393	342	1,469	342
August	345	853	279	—	426	59	—	1,565	279	1,624	279
September ...	246	426	362	—	693	95	—	1,270	362	1,365	362
October	338	619	294	—	764	98	—	1,623	294	1,721	294
November	348	536	413	—	700	99	—	1,485	413	1,584	413
December	190	421	372	—	548	68	—	1,091	372	1,159	372
Grand Total	2,637	5,868	3,793	—	6,958	1,168	—	14,295	3,793	15,463	3,793

TABLE No. 2.

TOTALS OF BUILDINGS AND LANDS DISINFESTED.

	Dwelling-houses.	Business Premises.	Bombed Sites.	Other Lands.	Total.
From Rats	863	833	62	88	1,846
From Mice	166	58	—	13	237

TABLE No. 3.

TYPE AND QUANTITY (OUNCES) OF POISON BAIT TAKEN BY RATS IN LANDS AND
BUILDINGS WHICH HAVE BEEN DISINFESTED AND THE ESTIMATED
NUMBER OF RATS DESTROYED.

Arsenic.	Zinc Phosphide.	Barium Carbonate.	Red Squill.	Dead Rats found.	Estimated Rats destroyed.
4,686	6,660	1,399	3,403	5,385	35,159

TABLE No. 4.

TOTAL RATS DESTROYED BY TRAPPING AND POISONING DURING 1945.

Trapping.		Poisoning.	Total Rats Destroyed.
Rats caught.	Dead Rats Found.	Estimated Rats destroyed : Not Found.	
10,078	5,385	29,774	45,237

AMBULANCE AND DISINFECTING DEPARTMENT.

The staff of the Ambulance and Disinfecting Department is engaged in (1) the removal of cases of infectious disease to hospital by ambulance, (2) the disinfection of premises and articles exposed to infection, (3) the disinfestation of verminous houses and articles, (4) the supervision of the City mortuary. The number of cases of infectious disease removed to hospital was 4,552. The number of houses disinfected after infectious disease was 4,678, whilst the number of articles of bedding, clothing, etc., disinfected by steam after exposure to infectious disease was 83,086.

DISINFESTATION OF PREMISES AND HOUSEHOLD EFFECTS.

Premises. 1,622 Corporation houses and 655 Corporation tenements were inspected for vermin. 608 houses and 502 tenements were infested with bugs, and the table below describes the action taken in these cases.

	Corporation Houses.		Non-Corporation Houses.
	Houses.	Tenements.	
Number treated	452	377	0
Awaiting treatment at the end of the year ...	65	85	0
War damaged and requisitioned houses treated	178	0	72

City Mortuary.

The number of bodies removed to the mortuary was:—

From the river	8
From the city	320

Cremation.

The number of cremations which took place at the Liverpool Crematorium during 1945 was 624, the highest number yet recorded.

Smoke Abatement.

In accordance with national policy, industrial smoke abatement practice has been discontinued. The West Lancashire and Cheshire Regional Smoke Abatement Committee have suspended their operations for the duration of the war.

Water Supply.

The following particulars have been kindly supplied by the Water Engineer.

The water supply in the area over the past year has been satisfactory, both in quantity and quality.

Bacteriological examinations are made regularly by the City Bacteriologist, these routine examinations being carried out both in the City and at Prescott Storage Reservoirs—the results of the chemical analyses have all been satisfactory.

The waters are not liable to plumbo-solvent action.

The supplies both from Rivington and Lake Vyrnwy are treated by slow sand filtration and chlorination, and further chlorination is carried out at Prescott Storage Reservoirs.

There are no parts of the area dependent upon standpipes for a supply.

INSPECTION OF FOOD.

A numerical summary of the visits paid to premises by the food inspectors is given in Table I.

TABLE I.

VISITS PAID TO PREMISES BY FOOD INSPECTORS.

Slaughter-houses.	Butchers' shops.	Fruit shops.	Fish & Fruit shops.	Food Hawkers' premises.	Jam factor-ies.	Pickle factor-ies.	Ice Cream premises	Food factories	Knackers' yards.	Total visits paid.
1	11,230	12,614	15,557	1,622	28	22	375	445	8	41,902

Private Slaughter-houses.

There are 4 private slaughter-houses in the city at which, during the year, no animals were slaughtered.

The City Abattoir.

239,278 animals of different kinds were slaughtered in Liverpool for human food. An analysis of this figure is given in Table II.

TABLE II.

NUMBER OF ANIMALS SLAUGHTERED IN LIVERPOOL FOR HUMAN FOOD.

	Bulls	Bullocks	Cows	Heifers	Calves	Sheep and Lambs	Swine	Horses	Goats.
Public Abattoir	461	23,329	20,749	8,039	28,011	154,639	4,000	—	50
TOTALS	461	23,329	20,749	8,039	28,011	154,639	4,000	—	50

TABLE III.

CARCASES OF ANIMALS (HOME-KILLED) BROUGHT INTO LIVERPOOL FROM OTHER DISTRICTS.

Brought into the—	Beef.	Veal.	Mutton.	Lamb.	Pork.
Meat Market	8,554	1,057	48	1,780	127
TOTALS	8,554	1,057	48	1,780	127

In addition to the above, 3,240 boxes or packages of home-killed offal were dealt with in the meat market.

TABLE IV.

CARCASES OF IMPORTED (FROZEN AND CHILLED) MEAT PASSING THROUGH THE CITY MEAT MARKET.

Beef.	Veal.	Mutton.	Lamb.	Pork.
2,525	1,216	120,942	396,653	31,917

In addition to the above, 171,777 boxes and packages of imported meat and offal were dealt with in the meat market.

1,387 lbs. imported beef were destroyed for unsoundness, chiefly mould and brine damage.

Diseased Conditions.

The carcasses of 45,948 animals showed abnormal conditions, and a detailed examination was made in each case, 2,656 carcasses being rejected as unfit for human food. Of these, 1,955 were destroyed at the abattoir and 701 were destroyed at knackers' yards. A description of the diseased conditions found during 1945 which led to the total or partial destruction of carcasses is given in Table V.

TABLE V.

Disease.	No.	Disease.	No.
Abscess (total)	4	Malignant Neoplasm	2
„ (partial)	86	Melanosis (total)	2
Arthritis, Septic (total)	8	„ (partial)	1
„ Simple (partial)	37	Moribund	10
Asphyxia	175	Nephritis Septic	25
Caseous Lymphadenitis	—	Parturient Fever	—
„ (partial)	—	Pyæmia	4
Contamination (partial)	7	Peritonitis Septic	14
Decomposition (total)	5	Peritonitis (partial)	10
„ (partial)	3	Pneumonia	33
Distomatosis	16	Pleurisy	11
Dropsy	205	Pleurisy (partial)	36
„ (partial)	1	Presternal Calcification (partial)	5
Emaciation	—	Sarcoma	1
Enteritis	224	Septicæmia	6
Foot and Mouth Disease (total)	31	Septic Mastitis	7
Gangrene (total)	—	„ Metritis	2
Gastritis (total)	4	„ Pericarditis	5
Immaturity	1	Swine Fever	—
Injury (total)	8	Swine Erysipelas	3
„ (partial)	263	Tuberculosis (total)	1,071
Jaundice	49	„ (partial)	841
Johnes Disease	5	Uræmia (total)	—
Joint Ill	24	Urticaria (partial)	14

In addition to the number of carcasses totally destroyed because diseased conditions made them unfit for human food, a number of organs with localised disease were condemned.

Quantities of Food Materials Condemned as being unfit for Human Food.

TABLE VI.

Beef, Veal, Mutton, Pork.	Offal.	Fish.		Crabs, Lobsters, Oysters, Crayfish, Shrimps, Prawns, Scallops.	Cockles, Mussels, and Winkles.	Poultry. Fowls, Ducks, Geese, Turkeys, etc.	Game. Partridges, Grouse, etc.	Rabbits and Hares.	Fruit. Apples, Pears, Bananas Oranges, Lemons, etc.	Vegetables.		Nuts, Cokernuts, Almonds, etc.	Sundries	Canned Food- stuffs.	Eggs.
		Wet.	Dry.												
Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Bags.	Head.	Head.	Head.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Liquid — lbs Dried — lbs In shell 367
935,711	1,080,220	406,076	52,102	9,856	316	1,406	308	1,010	58,269	521,869	—	569,495	97,284		

The Tuberculosis Order, 1938.

This Order aims at the destruction of cows suffering from tuberculosis in a form that is a source of danger to human beings and to other animals. During 1945, 74 cows were slaughtered under this Order at the City Abattoir.

Slaughter of Animals Act, 1933.

The following applications for licences as slaughtermen were received, namely: 5 for new licences, 85 for renewal of existing licences and 211 temporary licences for the slaughter of animals for the food of Mohammedans. In each case the licence was granted.

Salvage of Foodstuffs.

In addition to the ordinary examination and classification of foodstuffs submitted for inspection very many requests have been received from the Ministry of Food Salvage organisation, to examine and classify large and varied consignments of doubtful foodstuffs, a report being issued to the Ministry on each consignment. The origin of this type of foodstuffs being damaged ships, Army, Navy and Air Force Depots, surplus Ships' Stores, damaged goods in warehouses, etc.

For this purpose each consignment is on examination divided and classified as follows:—

- (a) Fit for retail trade.
- (b) Made fit for human food by reconditioning, and used for catering or manufacturing purposes.
- (c) Made fit for animal feeding by reconditioning.
- (d) Suitable for industrial purposes only.

THE SUPERVISION OF COWSHEDS, DAIRIES AND MILKSHOPS.

Registration of Dairies.

TABLE VII.

(Milk and Dairies Order, 1926.)

Number of registered dairies at the end of 1944.	New applications for registration.	Registration refused.	Dairies removed from the register.	Number of registered dairies at the end of 1945.
522	5	—	10	517

(13 dairies were transferred from one owner to another.)

Inspection of Dairies.

2,626 visits of inspection were paid to dairies. In 21 instances infringements of the Milk and Dairies Order, 1926, were found. In every case the notice of requirements was complied with at once. The corresponding visits for 1944 were 2,792.

Registration of Dairymen.

TABLE VIII.

Number of registered dairymen on Jan. 1st. 1945.	Applications for transfer of registration.	Applications refused.	Ceased to be dairymen.	Remaining on the register, Dec. 31st, 1945.
529	13	—	5	524

Of the 524 dairymen on the register at the end of the year, 7 were milk-hawkers who, having no premises of their own, are registered at the dairy from which they obtain their supplies and where they store their utensils.

Conveyance and Distribution of Milk Churns.

Observations were made at railway stations and other distributing centres to ensure that Sections 28 and 29 of the Milk and Dairies Order, 1926, relating to the marking, construction and cleanliness of milk churns, were complied with. 5 notices were sent to farmers outside the city drawing their attention to defects in milk churns. In each case the defects were remedied.

The Licensing of Places for Keeping Cattle.

(*Liverpool Corporation Act, 1921.*)

Under Sections 475 to 483 of the Liverpool Corporation Act, 1921, every person who keeps cattle is required to hold a licence from the Corporation both in respect of himself and also in respect of the premises. In Table IX is a summary of the register of licences in respect of milch cows and pigs.

TABLE IX.

LICENSING OF PREMISES ON WHICH MILCH COWS ARE KEPT.

	End of 1944.	End of 1945.
Number of licensed cowsheds... ..	157	148
Number of cows specified on the licences	3,046	2,920
Approximate average number of cows kept	2,480	2,378

(5 licences were transferred from one person to another.)

877 visits of inspection were paid to cowsheds. Ten of the cowsheds visited were the subject of notices drawing the attention of the occupiers to contraventions of the Liverpool Corporation Act, 1921. All the notices were complied with, and no prosecutions were necessary nor was any licence forfeited because premises were not properly kept.

LICENSING OF PREMISES ON WHICH PIGS ARE KEPT.

	End of 1945.
Number of licensed piggeries	97
Number of pigs specified on the licences	3,660
Approximate average number of pigs kept	1,028

Five new licences to keep pigs were applied for, involving the keeping of sixty pigs. These applications were granted. One licence was surrendered. 382 visits of inspection to piggeries were made, seven piggeries visited were the subject of notices drawing the attention of the occupiers to contraventions of the Liverpool Corporation Act, 1921, and in every case the notice was complied with. In farms situated in the outer districts of the city, premises licensed for the keeping of milch cows may be also used for keeping store cattle. At the end of 1945 504 store cattle were kept on licensed premises.

The Daily Supply of Milk to Liverpool.

The quantity of milk consumed in Liverpool daily is as follows:—

TABLE X.

DAILY CONSUMPTION OF MILK DURING 1945.

Grade of Milk.									Quantity in Gallons.
Tuberculin-tested (Certified)	...	...	...	...	...	...	...	...	10
Tuberculin-tested	...	...	...	...	...	...	...	...	525
Tuberculin-tested (Pasteurised)	...	...	...	...	...	...	...	...	5,000
Accredited	...	...	...	...	...	...	...	...	5,585
Raw ungraded	...	...	...	...	...	...	...	...	3,546
Pasteurised under licence	...	...	...	...	...	...	...	...	39,125
Heat-treated to pasteurisation standard	...	...	...	...	...	...	...	...	7,644
Sterilized	...	...	...	...	...	...	...	...	8,318
Total									69,753

The relative quantities of milk produced within the city or brought into the city by road or by rail are as follows:—

TABLE XI.

DAILY SOURCE OF MILK DURING 1945.

Produced from cows kept within the City.	Brought into the City by road.	Brought into the City by rail.
7,134 gallons	54,399 gallons	8,220 gallons

Total, 69,753 gallons.

Graded Milk.

The daily quantity of graded milk consumed is given in Table X.

TABLE XII.

PRODUCERS AND VENDORS OF GRADED MILK IN LIVERPOOL.

Nature of licence or licences.	Tuberculin Tested (Certified) Milk	Tuberculin Tested Milk	Tuberculin Tested (Pasteurised) Milk	Accredited Milk	Pasteurised Milk.
Producer only ...	0	1	0	36	0
Producer and retail vendor ...	0	0	1	29	5
Retail vendor only ...	0	1	47	5	0

The following changes in licensee-holders took place, namely: Five new licences were granted to producers of "Accredited" milk. Eleven new licences were granted to vendors of Tuberculin Tested (Pasteurised) Milk. The licences of three producer-retailers of "Accredited" milk were not renewed.

The Provision of Milk for School Children.

Pasteurised milk only is supplied to school children under the Milk Marketing Board's Scheme. During March some 91,300 children were each supplied with a third of a pint daily. This number is approximately 85 per cent. of the children attending school. During the year, 102 samples were examined bacteriologically and chemically, and the results as a whole were highly satisfactory. None of the samples was found to be tuberculous.

ICE-CREAM.

In 1942 the Ministry of Food prohibited the manufacture of ice-cream, but in November, 1944, the resumption of manufacture was permitted.

During the year 375 visits of inspection were made to ice-cream premises and 43 samples taken. The results of examination were satisfactory. In 76 per cent. of the samples the total count was under 10,000 organisms per c.c., and in 53 per cent. coliform bacilli were absent in 1 c.c.

THE CLEANLINESS OF MILK.

TABLE XIII.

EXAMINATION OF SAMPLES OF TUBERCULIN TESTED MILK.

Supplied by	Number of Samples	Where taken	METHYLENE BLUE REDUCTION TEST.		PRESENCE OR ABSENCE OF COLIFORM BACILLI.			
			Satisfactory.	Unsatisfactory.	Absent in 1 ml.	Present in 1 ml.	Present in $\frac{1}{10}$ ml.	Present in $\frac{1}{100}$ ml.
A	10	Hospitals and Institutions.	9	1	4	3	1	2
B	21	Do.	16	5	7	3	2	9
C	12	Do.	12	0	10	2	0	0
D	228	Wholesale depot	155	73	84	38	41	65
TOTALS	271		192	79	105	46	44	76

During the year there has been an intensive effort to encourage cow-keepers to produce cleaner milk, and the results summarised in Tables XIV and XV show that this effort met with success. Accredited milk produced within the City is considerably cleaner than that sent in from outside areas.

The bacteriological quality of Tuberculin-tested milk produced in areas outside and sent into the City was low (Table XIII). Approximately 29 per cent. of the samples failed to pass the methylene blue test, and 28 per cent. failed in the B. Coli test. Fortunately most of this milk is pasteurised in the City before reaching consumers.

TABLE XIV.

THE EXAMINATION OF ACCREDITED MILKS PRODUCED IN LIVERPOOL.

Total Number of Samples.	METHYLENE BLUE TEST.		PRESENCE OR ABSENCE OF COLIFORM BACILLI.				
	Satisfactory.	Unsatisfactory.	Absent in	Present in			
			1 ml.	1 ml.	$\frac{1}{10}$ ml.	$\frac{1}{100}$ ml.	$\frac{1}{1000}$ ml.
747	581	166	311	94	125	103	11
	77.7%	22.2%	41.7%	12.6%	16.7%	13.8%	15

THE EXAMINATION OF ACCREDITED MILKS PRODUCED OUTSIDE LIVERPOOL.

Total Number of Samples.	METHYLENE BLUE TEST.		PRESENCE OR ABSENCE OF COLIFORM BACILLI.				
	Satisfactory.	Unsatisfactory.	Absent in 1 ml.	Present in			
				1 ml.	$\frac{1}{10}$ ml.	$\frac{1}{100}$ ml.	$\frac{1}{1000}$ ml.
43	27	16	16	10	8	4	5
	62.8%	37.2%	37.2%	23.3%	18.6%	9.3%	11.6%

TABLE XV.

EXAMINATION OF SAMPLES OF UNGRADED AND UNTREATED MILK
PRODUCED IN LIVERPOOL.

Month.	Number of Samples	METHYLENE BLUE REDUCTION TEST.		PRESENCE OR ABSENCE OF COLIFORM BACILLI.				
		Satisfactory.	Unsatisfactory.	Absent in 1 ml.	Present in			
					1 ml.	$\frac{1}{10}$ ml.	$\frac{1}{100}$ ml.	$\frac{1}{1000}$ ml.
January ...	44	39	5	29	5	3	6	1
February ...	47	33	14	28	4	7	4	4
March ...	42	30	12	12	8	6	12	4
April ...	44	28	16	16	5	8	8	7
May ...	44	35	9	20	3	8	9	4
June ...	43	26	17	11	3	10	8	11
July ...	44	17	27	8	3	9	7	17
August ...	44	19	25	3	1	4	13	23
September	43	28	15	4	5	11	6	17
October ...	44	38	6	17	3	13	6	5
November...	51	49	2	20	6	9	13	3
December...	37	36	1	16	3	10	6	2
TOTAL ...	527	378	149	184	49	98	98	98
		71.7%	28.3%	34.9%	9.3%	18.6%	18.6%	18.6%

TUBERCULOUS MILK.

The Examination for Tuberculosis, of Milk produced
within the City.

TABLE XVI.

Kind of Milk.	Number of samples.	Tubercle bacilli present.	Percentage tuberculous.
Graded milk	744	21	2·8%
Ungraded raw milk ...	525	8	1·5%

The Examination for Tuberculosis, of Milk produced in Areas
outside the City.

TABLE XVII.

Kind of Milk.	Number of samples	Tubercle bacilli present.	Percentage tuberculous.
Graded milk	343	6	1·8%
Ungraded raw milk ...	48	1	2·1%

TABLE XVIII.

THE SITUATION OF AREAS OUTSIDE THE CITY FROM WHICH MILK SAMPLED
FOR TUBERCULOSIS WAS DERIVED.

County.	Description of Milk.		Number of Tuberculous samples.		Tubercle bacilli present.	Percentage tuberculous.
	Ungraded.	Graded.	Ungraded.	Graded.	Totals.	
Lancashire ...	7	61	—	1	1	1·5%
Cheshire	34	204	1	5	6	2·5%
Denbighshire ...	7	3	—	—	—	—
Shropshire ...	—	33	—	—	—	—
Cumberland ...	—	12	—	—	—	—
	48	343	1	6	7	1·8%

THE ADULTERATION OF FOOD AND DRUGS.

During 1945, 4,989 samples of food and drugs were purchased or taken and submitted for examination. Of these samples, 613 were formal samples and 4,376 were informal samples.

TABLE XIX.

OFFENCES UNDER THE FOOD AND DRUGS ACT, 1938, PHARMACY AND POISONS ACT, 1933.

Number of formations laid.	Nature of Sample.	Nature of Offence.	RESULT OF LEGAL PROCEEDINGS		
			Number of convic- tions.	Fines.	Costs
11	Milk	Contained added water	11	£ s. d. 17 0 0	£ s. 12 3
5	Milk	Deprived of Milk fat	5	6 0 0	6 10
4	—	Wilful obstruction of Inspector	4	17 0 0	—
1	Cod Liver Oil Emulsion	Giving a Label which falsely described the Emulsion	1	—	1 1
1	Pork Sausages	Contained an excess of Preservative	1	3 0 0	1 1
1	—	Keeping Poultry in a room where Milk Utensils were kept	1	5 0 0	1 5
1	—	Keeping appliances for bottling Milk where they were liable to contamina- tion	1	5 0 0	—
1	—	Closing Bottles of Milk in street	1	2 0 0	—
1	Strong Ammonia	Unlawfully selling strong Ammonia	1	2 0 0	2 2
26			26	57 0 0	24 2
				81 2 0	

Fertilisers and Feeding Stuffs Act,

During 1945, 72 samples of fertilisers and feeding stuffs were submitted for analysis. It was not necessary to take any legal proceedings.

Pharmacy and Poisons Act, 1933.

The Pharmacy and Poisons Act, 1933, regulates the sale of poisons. It is the duty of the Local Authority to carry out Part II of the Act, which deals with the registration of persons selling poisons mentioned in the Poisons List Confirmation Order, 1935. The number of names entered in the register is 486. Legal proceedings were taken against one unregistered vendor. See Table XIX.

REPORT OF THE CITY BACTERIOLOGIST.

In 1945 the number of specimens examined amounted to 83,988, of which 6,815 were outside authorities and 5,939 for the Armed Forces.

PLAGUE. None of the 2,877 rats examined were found infected with plague.

ANTHRAX. The Government Wool Disinfecting Station submitted 214 specimens of hair and wool for examination. Of these 107 were untreated and 58 contained anthrax bacilli; 107 were treated and of these none was infected with anthrax.

Examinations made in the Bacteriological Department for the
City of Liverpool during the year 1945.

Milk (fresh—liquid)	...	...	...	...	...	...	...	...	2,370
Foodstuffs	...	...	...	...	...	...	...	...	64
Water ...	...	...	...	...	...	...	...	...	1,003
Rats for plague	...	...	...	...	...	...	...	...	1,164
Swabs from throat and nose infections				...	...	...	...	...	35,985
Specimens for intestinal infections...				...	...	...	...	...	4,536
Cerebro-spinal fluid, etc. for pathogenic organisms						...	...	...	58
Sputum, etc. for tubercle bacilli			...	...	...	...	...	...	1,132
Exudates for anthrax bacilli			...	...	...	...	...	...	88
Miscellaneous specimens	...	...	...	...	...	...	...	...	36
									<hr/> 46,436 <hr/>

Venereal Diseases :

Serological tests	...	...	...	...	...	...	...	...	21,526
Other tests	...	...	...	...	...	...	...	...	1,345
									22,871

Port Health Authority :

Wool and hair for anthrax bacilli	...	...	...	...	...	214
Rats for plague bacilli	...	...	...	...	...	1,713
Miscellaneous specimens	...	...	...	...	...	—
						<hr/> 1,927

Examinations made for Outside Authorities (specimens charged) :

Bacteriological	...	...	...	...	...	...	...	3,235
Venereal Diseases	...	...	...	...	...	...	...	3,580
								<u>6,815</u>

Examinations made for the Armed Forces (no charge) :

Bacteriological	...	...	...	...	...	...	...	891
Venereal Diseases	...	...	...	...	...	...	.....	5,048
								<u>5,939</u>

SUMMARY.**LIVERPOOL :**

Specimens of water, milk, foodstuffs and infectious material	...	...	...	...	...	...	46,436	
Venereal Diseases	...	...	...	...	...	...	22,871	
Port Health Authority	...	...	...	...	...	...	1,927	
								<u>71,234</u>

OUTSIDE AUTHORITIES :

Bacteriological	...	...	...	...	...	...	3,235	
Venereal Diseases	...	...	...	...	...	...	3,580	
								<u>6,815</u>

ARMED FORCES :

Bacteriological	891	
Venereal Diseases	5,048	
								<u>5,939</u>

Total	<u>83,988</u>
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HOUSING.

Owing to the War, and the terms of the Ministry of Health Circular No. 1,866, dated September 8th, 1939, normal progress in regard to slum clearance has ceased. During the year 190 houses were demolished and 89 persons re-housed.

Landlord and Tenant (War Damage) Amendment Act, 1941.

10 houses were inspected during the year under the above enactment. 9 applications for examination under the Act were made by landlords, and 6 certificates of fitness were issued. One application for examination under the Act was made by a tenant, and it was found on examination that the dwelling-house had not been repaired so as to be deemed reasonably capable of being used for housing purposes.

Defence (General) Regulations, 1939. (Regulation 66^{AA}).

48 applications were received for the renewal of licences, and these were granted.

Two applications were received for a licence to re-open a house in a clearance area under the above regulations. Repairs and cleansing were carried out, and the licence issued.

Increase of Rent and Mortgage Interest (Restrictions) Acts, 1920/1939.

Certificates have been issued under the above Acts in respect of 124 dwelling-houses which were not in a reasonable state of repair.

Houses Erected on Suburban Estates at 31st December, 1945.
(Including houses erected on the outskirts for slum clearance purposes.)

Estates.					Non-Parlour.	Parlour.	TOTAL.
Dovecot Estate	...	...	...	...	2,331	686	3,017
Edge Lane Drive Estate	...	...	...	...	560	311	871
Elms House Estate	...	...	...	...	252	—	252
Fazakerley Estate	...	...	...	...	1,030	410	1,440
Finch Lane	...	...	...	...	54	—	54
Highfield Estate	...	...	...	...	—	618	618
King Street, etc., Garston	...	...	...	...	76	—	76
Knotty Ash Estate	...	...	...	...	389	263	652
Knowsley Estate	...	...	...	...	874	—	874
Larkhill Estate	...	...	...	...	476	1,834	2,310
„ „ (Flats)	...	...	...	...	90	120	210
Norris Green Estate	...	...	...	...	4,730	2,965	7,695
Pinehurst Road Estate	...	...	...	...	287	395	682
Ronald Street	...	...	...	...	78	—	78
Sparrow Hall Estate	...	...	...	...	*531	63	594
„ „ „ (Flats)	...	...	...	...	36	—	36
Speke (Banks Lane) Estate	...	...	...	...	286	—	286
Speke	...	...	...	...	951	667	1,618
„ (Flats)	...	...	...	...	—	†13	13
Speke Road (Flats)	...	...	...	...	312	—	312
Springwood Estate	...	...	...	...	250	1,249	1,499
„ „ (Flats)	...	...	...	...	—	49	49
Walton-Clubmoor Estate	...	...	...	...	1,525	1,671	3,196
Woolton	...	...	...	...	416	73	489
Partly-developed Estates	...	...	...	...	—	554	554
Total within the area of the City					15,534	11,941	27,475
Huyton Farm Estate	...	...	...	...	937	79	1,016
Knowsley Estate	...	...	...	...	3,631	710	4,341
„ „ (Flats)	...	...	...	...	108	—	108
Total outside the City boundary					4,676	789	5,465
GRAND TOTAL					20,210	12,730	32,940

*Including 20 experimental non-timber houses.

†Includes 4 maisonettes.

The number of houses inspected for housing defects under Public Health or Housing Acts was 172, and the number of inspections made for the purpose was 254.

Notices were served requiring defects to be remedied under the Public Health Act in respect of 26,167 houses. The number of dwelling-houses in which defects were remedied after service of formal notices was 14,619, and 9,183 defective dwelling-houses were rendered fit in consequence of informal action.

Housing Act 1936, Part IV. Overcrowding.

65,535 visits were made to houses in connection with the overcrowding provisions of the Housing Act.

Houses Owned by the Local Authority.

Total number of houses and flats owned by the Local Authority at 31st December, 1945 (excluding 20 houses built under the powers of the Housing Acts and subsequently sold).. 42,074

Number of houses built in the last two years under—

1.	Housing Act, 1936, Part III ...	...	...	...	Nil
2.	„ „ „ Part V ...	...	...	...	Nil

The following table shows the accommodation which has been provided in the Corporation's housing and rehousing schemes up to 31st December, 1945, including 6 cottages ex-West Lancs. R.D.C., 2 flats at Maintenance Depots and 20 houses sold to occupiers.

No. of rooms per dwelling (exclusive of bathroom, sculleries, etc.)	Number of Houses and Flats erected.					TOTALS.
	On Suburban Estates.			In Central Areas.		
	Houses.	Aged persons' cottages.	Flats.	Houses.	Flats.	
1	—	130	18	—	223	371
2	—	220	98	—	1,737	2,055
3	1,422	—	251	18	3,528	5,219
4	17,570	—	207	158	3,219	21,154
5	12,849	—	156	18	235	13,258
6	18	—	—	—	18	36
7	1	—	—	—	—	1
TOTALS ...	31,860	350	730	194	8,960	42,094

Rentals.

The weekly rentals of flats (including rates), range from 3/10d. for a bed living room flat to 11/5d. for a five bedroom flat. The inclusive weekly rentals of houses vary between 8/6d. to 14/10d. for the non-parlour type, and 16/9d. to 19/6d. for the parlour type, and 23/- to 24/- per week for houses with garages, and for Aged Persons Cottage Flats 4/- and 5/6d. per week.

APPENDIX A.

CITY OF LIVERPOOL.

Birth-Rates, Death-Rates, and Analysis of Mortality during the year 1945.

England and Wales, London, 126 County Boroughs and Great Towns, and 148 Smaller Towns. (Provisional Figures)

	Rate per 1,000 Population.		Annual Death-Rate per 1,000 Population.								Rate per 1,000 Live Births.	
	Live Births.	Still-births.	All Causes.	Typhoid and Paratyphoid Fevers.	Small-pox.	Measles.	Scarlet Fever	Whooping Cough.	Diphtheria.	Influenza.	Diarrhoea and Enteritis (under two years).	Total Deaths under one year.
England and Wales	16·1	0·46	11·4	0·00	...	0·02	0·00	0·02	0·02	0·08	5·6	46
126 County Boroughs and Great Towns, including London	19·1	0·58	13·5	0·00	...	0·02	0·00	0·02	0·02	0·07	7·8	54
148 Smaller Towns (Resident Populations 25,000 to 50,000 at Census 1931)	19·2	0·53	12·3	0·00	...	0·02	0·00	0·01	0·02	0·07	4·5	43
London	15·7	0·40	13·8	0·00	...	0·01	0·00	0·02	0·01	0·07	7·6	53
Liverpool	21·7	0·63	14·0	0·01	...	0·02	0·00	0·05	0·04	0·10	9·1	72

The maternal mortality rates (provisional) for England and Wales are as follows : per 1,000 Total Births ...

Puerperal Sepsis,	Others.	Total.
0·49	1·30	1·79

CITY OF LIVERPOOL.

Causes of, and ages at, Death during the year 1945.

Causes of Death.		NET DEATHS AT VARIOUS AGES, OF "RESIDENTS," WHETHER OCCURRING WITHIN OR WITHOUT THE DISTRICT.								Total Deaths in Liverpool District, whether of "Residents" or "Non-Residents."	
		At all ages.	AT AGES—YEARS.								
			Under 1	1—	3—	5—	15—	25—	45—		65—
All Causes	Certified	9512	1064	128	57	176	269	836	2492	4490	10558
	Uncertified	11	4	—	—	—	—	2	1	4	11
1.	Typhoid and Paratyphoid Fevers	2	—	—	—	—	—	1	1	—	2
2.	Measles	13	8	4	1	—	—	—	—	—	15
3.	Scarlet Fever	1	—	—	—	1	—	—	—	—	1
4.	Whooping Cough	38	25	10	2	1	—	—	—	—	39
5.	Diphtheria	28	1	3	10	12	2	—	—	—	29
6.	Influenza	69	5	3	—	2	3	7	23	26	69
7.	Encephalitis Lethargica	19	—	—	—	—	—	10	6	3	20
8.	Cerebro-spinal Fever	9	4	2	—	—	1	1	1	—	15
9.	Tuberculosis of Respiratory System ...	605	2	7	—	9	114	252	182	39	651
10.	Other Tuberculous Diseases	96	6	14	12	21	22	15	4	2	116
11.	Syphilis	32	3	—	—	—	1	4	15	9	34
12.	General Paralysis of the Insane	14	—	—	—	—	—	3	9	2	15
13.	Cancer	1230	—	2	2	3	3	108	547	565	1414
14.	Diabetes	58	—	—	—	1	2	8	14	33	69
15.	Cerebral Haemorrhage	653	—	—	—	—	1	26	196	430	708
16.	Heart Disease	2109	—	—	—	9	21	107	518	1454	2292
17.	Aneurysm	—	—	—	—	—	—	—	—	—	—
18.	Other Circulatory Diseases	562	2	1	—	1	—	12	120	426	614
19.	Bronchitis	861	37	3	1	5	2	24	260	529	909
20.	Pneumonia (all forms)	573	250	36	6	5	11	29	120	116	625
21.	Other Respiratory Diseases	116	4	—	—	2	1	18	49	42	128
22.	Peptic Ulcer	99	—	—	—	—	—	12	53	34	124
23.	Diarrhoea, etc.	164	137	11	1	—	—	1	5	9	184
24.	Appendicitis	27	—	—	2	5	4	9	4	3	30
25.	Cirrhosis of Liver	6	—	—	—	—	1	1	3	1	8
26.	Other Diseases of Liver	30	2	—	—	—	—	4	12	12	41
27.	Other Digestive Diseases	109	13	2	—	5	2	10	28	49	129
28.	Acute and Chronic Nephritis	161	1	—	—	2	9	24	53	72	189
29.	Puerperal Sepsis	7	—	—	—	—	1	6	—	—	8
30.	Other Puerperal Causes	16	—	—	—	—	2	14	—	—	20
31.	Congenital Debility, Premature Birth, Malformations, etc.	427	416	2	3	3	2	—	1	—	493
32.	Senility	366	—	—	—	—	—	—	—	366	382
33.	Suicide	57	—	—	—	1	3	16	29	8	58
34.	Other Violence	291	21	11	15	48	15	36	62	83	331
35.	Other Defined Causes	673	131	17	2	40	46	79	177	181	809
36.	Causes Ill-defined or unknown.....	2	—	—	—	—	—	1	1	—	2
TOTALS		9523	1068	128	57	176	269	838	2493	4494	10569

CITY OF LIVERPOOL.

Infant Mortality during the year 1945.

Net Deaths from stated Causes at various Ages under One Year.

CAUSE OF DEATH.								Under 1 Week.	1 Week and under 2 Weeks.	2 Weeks and under 3 Weeks.	3 Weeks and under 4 Weeks.	Total under 4 Weeks.	4 Weeks and under 3 Months.	3 Months and under 6 Months.	6 Months and under 9 Months.	9 Months and under 12 Months.	Total Deaths under One Year.
All Causes.	Certified	...	...	...	...	...	...	295	46	50	46	437	232	214	127	54	1,064
	Uncertified	...	...	...	...	...	...	3	—	—	—	3	—	1	—	—	4
Typhoid Fever								—	—	—	—	—	—	—	—	—	—
Chicken-pox								—	—	—	—	—	—	—	—	—	—
Measles								—	—	—	—	—	—	1	3	4	8
Scarlet Fever								—	—	—	—	—	—	—	—	—	—
Whooping Cough								—	—	—	—	—	5	8	4	8	25
Diphtheria								—	—	—	—	—	—	—	—	1	1
Cerebro Spinal Fever								—	—	—	—	—	—	2	2	—	4
Influenza								—	—	—	—	—	—	3	1	1	5
Dysentery								—	—	—	—	—	2	2	1	—	5
Erysipelas								—	—	—	—	—	—	—	—	—	—
Pulmonary Tuberculosis								—	—	—	—	—	—	—	2	—	—
Tuberculous Meningitis								—	—	—	—	—	—	1	1	2	4
Other Tuberculous Diseases								—	—	—	—	—	—	1	1	—	2
Meningitis (not Tuberculous)								—	—	—	—	—	1	—	3	1	5
Convulsions								—	1	1	—	2	—	1	1	—	4
Bronchitis								2	3	2	—	7	8	15	4	3	37
Pneumonia (all forms)								10	6	10	11	37	81	76	42	14	250
Diarrhœa								—	—	—	—	—	—	—	—	—	—
Enteritis								—	3	4	12	19	53	31	23	11	137
Other Diseases of Stomach								—	—	—	—	—	—	—	—	—	—
Syphilis								—	—	—	—	—	3	—	—	—	3
Rickets								—	—	—	—	—	—	—	—	—	—
Suffocation								—	—	1	—	1	3	7	1	1	13
Injury at Birth								18	2	—	1	21	—	—	—	—	21
Atelectasis								40	1	2	—	43	—	2	—	—	45
Malformations								29	7	4	3	43	8	10	2	2	65
Premature Birth								179	21	19	12	231	18	4	—	—	253
Atrophy, Debility and Marasmus...								5	—	2	1	8	7	—	—	—	15
Other Causes								15	2	5	6	28	43	51	36	6	164
								298	46	50	46	440	232	215	127	54	1,068

Net Births in the year { Legitimate ... 13,202
 { Illegitimate ... 1,582

Net Deaths in the year of { Legitimate Infants 927
 { Illegitimate Infants 141

APPENDIX D.

CITY OF LIVERPOOL.

Notifiable Diseases (other than Tuberculosis) during the Year 1945.

DISEASE.	NUMBER OF CASES NOTIFIED.													Cases admitted to Hospital	TOTAL DEATHS
	At all Ages.	At Ages—Years													
		Under 1	1—	2—	3—	4—	5—	10—	15—	20—	35—	45—	65—		
Small-pox	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Scarlet Fever	2482	14	62	118	164	172	1032	623	178	91	21	7	—	1017	1
Diphtheria	692	9	29	29	48	58	279	122	55	47	10	4	2	673	28
Enteric Fever (including Para-typhoid)	8	—	—	—	—	—	2	—	1	2	2	—	1	8	2
Erysipelas.....	272	—	—	—	—	—	—	—	14	209	49	—	—	258	—
Pneumonia	1016	121	96	85	66	60	101	28	57	102	72	164	64	153	196
Cerebro-spinal Fever	47	8	7	3	—	3	8	4	1	4	3	6	—	41	9
Encephalomyelitis and Polioencephalitis ..	4	—	—	—	—	—	—	1	—	2	—	1	—	3	1
Encephalitis Lethargica	—	—	—	—	—	—	—	—	—	—	—	—	—	—	19
Bacillary Dysentery	515	50	86	85	53	34	89	39	20	31	11	14	3	451	7
Ophthalmia Neonatorum	222	222	—	—	—	—	—	—	—	—	—	—	—	143	—
Erysipelas	308	4	1	2	2	2	4	6	10	40	55	136	46	150	7
Malaria	50	—	—	—	—	1	—	—	1	30	11	6	1	25	2
Pharyngitis	2	—	—	—	—	—	—	—	—	—	1	1	—	2	—
Measles	4215	327	667	775	670	608	1036	95	25	10	1	1	—	401	13
Crouping Cough	1093	162	184	188	152	113	274	16	3	1	—	—	—	140	38
TOTALS	10926	917	1132	1285	1155	1051	2825	934	365	569	236	340	117	3465	323

DEATHS REGISTERED DURING THE YEAR 1945

DISEASES	SEX		AGE—BELOW																		REGISTRATION DISTRICT (SOUTH)	REGISTRATION DISTRICT (NORTH)	TOTALS.					
	Males.	Females.	1	2	3	4	5	10	15	20	25	30	35	40	45	50	55	60	65	70				75	80	90	Over 90	
ALL CAUSES	4984	4539	1068	81	47	33	24	83	93	108	161	158	189	196	295	300	520	696	917	1131	1207	1053	1004	99	3548	5975	9523	
I.—Infections and Parasitic Diseases	579	391	66	30	14	16	9	28	19	55	92	76	86	65	71	67	63	62	63	45	26	8	8	1	276	694	970	
II.—Cancer and other Tumours	629	651	...	1	3	1	1	2	3	3	2	10	14	30	65	95	121	163	196	199	171	123	75	2	463	817	1280	
III.—Rheumatism and other General Diseases	55	98	1	1	1	...	...	4	12	4	12	2	4	8	9	2	5	12	17	10	22	8	13	...	76	77	153
IV.—Diseases of the Blood	31	51	3	...	1	1	...	2	4	1	2	...	2	1	3	2	7	11	11	8	14	6	2	1	29	53	82	
V.—Chronic Poisoning	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	2	2
VI.—Diseases of Nervous System	422	451	95	5	5	...	...	1	5	8	8	6	14	10	25	20	41	71	99	137	114	111	58	2	277	596	873
VII.—Diseases of Circulatory System	1244	1427	2	1	2	8	10	11	20	25	30	41	68	120	182	208	383	502	466	482	47	1004	1667	2671
VIII.—Diseases of Respiratory System	942	609	292	27	12	4	3	4	8	5	9	12	14	18	27	47	100	113	169	213	186	165	115	8	557	994	1551	
IX.—Diseases of Digestive System	253	182	152	9	4	3	...	5	5	3	4	7	5	10	15	16	28	32	29	44	32	15	16	1	209	226	435	
X.—Diseases of Genito Urinary System	176	118	11	...	...	...	...	1	3	4	8	8	7	6	12	14	14	27	31	59	42	30	16	1	119	175	294
XI.—Diseases of Pregnancy	23	11	12	23
XII.—Diseases of Skin	11	17	7	1	...	...	...	...	...	...	2	1	1	1	1	1	2	2	3	3	3	3	...	...	7	21	28
XIII.—Diseases of Bones	11	7	2	9	9	18
XIV.—Congenital Malformations	40	36	65	...	2	1	2	2	1	2	...	...	...	...	...	...	1	...	2	1	3	2	...	...	52	24	76
XV.—Diseases of Early Infancy	218	133	351	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	176	175	351
XVI.—Old Age	133	233	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	39	92	201	32	119	247	366
XVII.—Deaths from Violence	236	112	21	6	5	7	8	28	21	11	7	9	10	12	21	25	16	20	30	19	25	25	18	4	163	185	348	
XVIII.—Ill-defined Diseases	2	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	1	1	2
Class 1.—Typhoid Fever	1	1	1	...	1	4	5	9
Cerebro-spinal Fever	8	1	4	2	1	1	1	1
Scarlet Fever	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	12	26	38
Whooping Cough	23	15	25	7	3	1	1	1	1	27	28
Diphtheria	8	20	1	3	...	7	3	10	2	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	6	7
Erysipelas	4	3	1	1	...	3	1	...	1	1	6	7
Tuberculosis of Resp. Syst.	370	235	2	5	2	...	...	3	6	34	80	72	72	51	57	53	48	42	39	22	11	5	1	...	164	441	605
Tuberculosis Meningitis	27	26	4	7	5	5	5	12	6	6	1	...	...	...	1	...	...	...	...	...	...	...	...	...	11	42	53
Tuberculosis of Intestines, etc.	3	11	...	1	...	...	...	...	1	3	2	...	...	3	2	...	...	1	1	...	...	...	...	...	6	8	14
Tuberculosis of other Organs	17	12	2	1	...	2	...	...	2	5	5	3	1	4	1	...	...	1	...	...	2	...	...	...	7	22	29
Dysentery	6	1	5	...	...	...	...	...	...	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1	6	7
Malaria	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	2	...	2
Syphilis	22	10	3	...	...	...	...	...	...	1	...	...	...	2	...	2	3	4	5	7	1	1	...	...	11	21	32
Locomotor Ataxia	4	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	1	2	...	...	...	...	...	1	4	5
General Paralysis of Insane	12	2	...	...	...	...	...	...	...	...	...	...	...	...	1	1	2	3	1	3	1	1	...	...	5	9	14
Influenza	37	32	5	2	1	...	...	...	2	3	...	1	2	1	3	3	3	6	11	9	8	2	6	1	33	36	69
Smallpox .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...</

